

AGENDA

Plans and Programs Policy Committee

June 21, 2006, 12:00 p.m.

Location:

SANBAG Offices

1170 W. 3rd Street, 2nd Floor

San Bernardino, CA 92410

The Super Chief Room

Plans and Programs Committee Membership

Chair

*Paul Eaton, Mayor
City of Montclair*

Vice Chair

*Mark Nuaimi, Mayor
City of Fontana*

East Valley Representatives

*Kelly Chastain, Council Member
City of Colton*

*Richard Riddell, Mayor
City of Yucaipa*

*Larry McCallon, Council Member
City of Highland*

West Valley Representatives

*Diane Williams, Mayor Pro Tem
Rancho Cucamonga*

Mountain/Desert Representatives

*Kevin Cole, Council Member
Twentynine Palms*

*Paul Cook, Mayor
Town of Yucca Valley*

*James Lindley, Council Member
City of Hesperia*

San Bernardino County

Bill Postmus, Supervisor

Paul Biane, Supervisor

Dennis Hansberger, Supervisor

Josie Gonzalez, Supervisor

Gary Ovitt, Supervisor

San Bernardino Associated Governments (SANBAG) is a council of governments formed in 1973 by joint powers agreement of the cities and the County of San Bernardino. SANBAG is governed by a Board of Directors consisting of a mayor or designated council member from each of the twenty-four cities in San Bernardino County and the five members of the San Bernardino County Board of Supervisors.

In addition to SANBAG, the composition of the SANBAG Board of Directors also serves as the governing board for several separate legal entities listed below:

***The San Bernardino County Transportation Commission**, which is responsible for short and long range transportation planning within San Bernardino County, including coordination and approval of all public mass transit service, approval of all capital development projects for public transit and highway projects, and determination of staging and scheduling of construction relative to all transportation improvement projects in the Transportation Improvement Program.*

***The San Bernardino County Transportation Authority**, which is responsible for administration of the voter-approved half-cent transportation transactions and use tax levied in the County of San Bernardino.*

***The Service Authority for Freeway Emergencies**, which is responsible for the administration and operation of a motorist aid system of call boxes on State freeways and highways within San Bernardino County.*

***The Congestion Management Agency**, which analyzes the performance level of the regional transportation system in a manner which ensures consideration of the impacts from new development and promotes air quality through implementation of strategies in the adopted air quality plans.*

*As a **Subregional Planning Agency**, SANBAG represents the San Bernardino County subregion and assists the Southern California Association of Governments in carrying out its functions as the metropolitan planning organization. SANBAG performs studies and develops consensus relative to regional growth forecasts, regional transportation plans, and mobile source components of the air quality plans.*

Items which appear on the monthly Board of Directors agenda are subjects of one or more of the listed legal authorities. For ease of understanding and timeliness, the agenda items for all of these entities are consolidated on one agenda. Documents contained in the agenda package are clearly marked with the appropriate legal entity.

San Bernardino Associated Governments
County Transportation Commission
County Transportation Authority
Service Authority for Freeway Emergencies
County Congestion Management Agency

Plans and Programs Policy Committee

June 21, 2006

12:00 p.m.

LOCATION:

**San Bernardino Associated Governments
1170 W. 3rd Street, 2nd Floor, San Bernardino
The Super Chief Room**

CALL TO ORDER - 12:00 p.m.

(Meeting chaired by Mayor Paul Eaton)

- I. Attendance
- II. Announcements
- III. Agenda Notices/Modifications

1. Possible Conflict of Interest Issues for the SANBAG Plans and Programs Meeting of June 21, 2006 Pg. 8

Note agenda item contractors, subcontractors and agents which may require member abstentions due to conflict of interest and financial interests. Member abstentions shall be stated and recorded on the appropriate item in the minutes summary for each month.

Consent Calendar

Consent Calendar items shall be adopted by a single vote unless removed by Board member request. Items pulled from the consent calendar will be brought up at the end of the agenda.

2. Plans and Programs Attendance Roster Pg. 9

A quorum shall consist of a majority of the membership of each SANBAG Policy Committee, except that all County Representatives shall be counted as one for the purpose of establishing a quorum.

Notes/Action

Discussion Calendar

3. Election of Committee Chair and Vice Chair **Pg. 10**

Conduct elections for members to serve as Chair and Vice Chair of the SANBAG Plans and Programs Policy Committee for terms to end June 30, 2007. **Ty Schuiling**

4. San Bernardino Valley Measure I Audits **Pg. 11**

Accept the Measure I Summary Audit Report of Local Pass-Through Funds for the year ending June 30, 2005 for the jurisdictions in the San Bernardino Valley Subregion. **Ryan Graham**

5. Amendment to Contract 06-012 with Arthur Bauer & Associates for conducting the Transportation Development Act (TDA) Triennial Performance Audits of the County Transportation Commission and six transit operators/claimants. **Pg. 40**

Approve Amendment Number 1 to Contract 06-012 with Arthur Bauer and Associates, extending the time of performance to March 7, 2007; amending the scope of work to include Phase II, Development of Omnitrans Cost Allocation Methodology; and increasing the contract authority by \$21,315.00 as identified in the Financial Impact Section. **Mike Bair**

6. Award of Construction Contract 06-055 for San Bernardino Valley Coordinated Traffic Signal System Program – Tier 1 **Pg. 51**

Authorize staff to proceed directly to Board for award of Construction Contract 06-055 for San Bernardino Valley Coordinated Traffic Signal System Program – Tier 1 **Andrea Zureick**

7. Local Agency Project Advancement Agreement **Pg. 54**

Approve Project Advancement Cooperative Agreement C07022 with the City of Chino Hills for the Widening of Peyton Drive from Grand Avenue to Chino Hills Parkway. **Andrea Zureick**

8. Development Mitigation Program Cost Escalation Factor **Pg. 66**

Adopt the rolling 5-year average of the Caltrans Construction Items Index (12.9% for calendar year 2004-2005) as the cost escalation factor for the San Bernardino County Development Mitigation Program. **Ryan Graham**

9. Program to Address Critical Habitat Issues (Indirect Impacts) Pg. 75
Associated with Major Measure I Expenditure Plan Projects

1. Execute a purchase order with the County of San Bernardino - County Museum to provide biological mapping and analysis in support of the SANBAG habitat initiative
2. Amend Fiscal Year 2006/2007 budget, adding \$138,154 to Task Number 11207000, Regional Growth Forecast Development

10. Scope of Work for COMPASS Blueprint Implementation: Pg. 84
Transportation-Land Use Integration on Multiple Central and East Valley Sites

Approve Scope of Work. Ty Schuiling

11. Measure I 2010-2040 Strategic Plan Workshop on Project Cost Pg. 89
Estimates and Revenue Projections

Receive information. Ty Schuiling

12. Funding Agreement with the Mobile Source Air Pollution Reduction Pg. 185
Review Committee (MSRC) for the implementation of two new Freeway Service Patrol (FSP) Beats.

Execute Contract No. C07021 between SANBAG and the MSRC, to receive MSRC funding for the implementation of two new FSP Beats.
Kelly Lynn

Public Comments

Items under this heading will be referred to staff for further study, research, completion and/or future actions.

13. Additional Items from Committee Members

14. Brief Comments by General Public

Additional Information

15. Acronym List Pg. 202

ADJOURNMENT

Complete packages of this agenda are available for public review at the SANBAG offices. Staff reports for items may be made available upon request. For additional information call (909) 884-8276 and ask for Joanne Cook.

**The next Plans and Programs Meeting
is July 19, 2006.**

Meeting Procedures and Rules of Conduct

Meeting Procedures

The Ralph M. Brown Act is the state law which guarantees the public's right to attend and participate in meetings of local legislative bodies. These rules have been adopted by the Board of Directors in accordance with the Brown Act, Government Code 54950 et seq., and shall apply at all meetings of the Board of Directors and Policy Committees.

Accessibility

The SANBAG meeting facility is accessible to persons with disabilities. If assistive listening devices or other auxiliary aids or services are needed in order to participate in the public meeting, requests should be made through the Clerk of the Board at least three (3) business days prior to the Board meeting. The Clerk's telephone number is (909) 884-8276 and office is located at 1170 W. 3rd Street, 2nd Floor, San Bernardino, CA.

Agendas – All agendas are posted at 1170 W. 3rd Street, 2nd Floor, San Bernardino at least 72 hours in advance of the meeting. Staff reports related to agenda items may be reviewed at the SANBAG offices located at 1170 W. 3rd Street, 2nd Floor, San Bernardino and our website: www.sanbag.ca.gov.

Agenda Actions – Items listed on both the "Consent Calendar" and "Items for Discussion" contain suggested actions. The Board of Directors will generally consider items in the order listed on the agenda. However, items may be considered in any order. New agenda items can be added and action taken by two-thirds vote of the Board of Directors.

Closed Session Agenda Items – Consideration of closed session items *excludes* members of the public. These items include issues related to personnel, pending litigation, labor negotiations and real estate negotiations. Prior to each closed session, the Chair will announce the subject matter of the closed session. If action is taken in closed session, the Chair may report the action to the public at the conclusion of the closed session.

Public Testimony on an Item – Members of the public are afforded an opportunity to speak on any listed item. Individuals wishing to address the Board of Directors or Policy Committee Members should complete a "Request to Speak" form, provided at the rear of the meeting room, and present it to the Clerk prior to the Board's consideration of the item. A "Request to Speak" form must be completed for *each* item an individual wishes to speak on. When recognized by the Chair, speakers should be prepared to step forward and announce their name and address for the record. In the interest of facilitating the business of the Board, speakers are limited to three (3) minutes on each item. Additionally, a twelve (12) minute limitation is established for the total amount of time any one individual may address the Board at any one meeting. The Chair or a majority of the Board may establish a different time limit as appropriate, and parties to agenda items shall not be subject to the time limitations.

The Consent Calendar is considered a single item, thus the three (3) minute rule applies. Consent Calendar items can be pulled at Board member request and will be brought up individually at the specified time in the agenda allowing further public comment on those items.

Agenda Times – The Board is concerned that discussion take place in a timely and efficient manner. Agendas may be prepared with estimated times for categorical areas and certain topics to be discussed. These times may vary according to the length of presentation and amount of resulting discussion on agenda items.

Public Comment – At the end of the agenda, an opportunity is also provided for members of the public to speak on any subject within the Board's authority. *Matters raised under "Public Comment" may not be acted upon at that meeting. "Public Testimony on any Item" still apply.*

Disruptive Conduct – If any meeting of the Board is willfully disrupted by a person or by a group of persons so as to render the orderly conduct of the meeting impossible, the Chair may recess the meeting or order the person, group or groups of person willfully disrupting the meeting to leave the meeting or to be removed from the meeting. Disruptive conduct includes addressing the Board without first being recognized, not addressing the subject before the Board, repetitiously addressing the same subject, failing to relinquish the podium when requested to do so, or otherwise preventing the Board from conducting its meeting in an orderly manner. *Please be aware that a NO SMOKING policy has been established for meetings. Your cooperation is appreciated!*

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- San Bernardino County Transportation Commission •San Bernardino County Transportation Authority
 - San Bernardino County Congestion Management Agency •Service Authority for Freeway Emergencies
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Minute Action

AGENDA ITEM: 1

Date: June 21, 2006

Subject: Information Relative to Possible Conflict of Interest

Recommendation *: Note agenda items and contractors/subcontractors which may require member abstentions due to possible conflicts of interest.

Background: In accordance with California Government Code 84308, members of the SANBAG Board may not participate in any action concerning a contract where they have received a campaign contribution of more than \$250 in the prior twelve months from an entity or individual. This agenda contains recommendations for action relative to the following contractors:

Item No.	Contract No.	Contractor/Agents	Subcontractors
	06-012	Arthur Bauer & Associates Sandra K. Bauer, President	NA

Financial Impact: This item has no direct impact on the SANBAG budget.

Reviewed By: This item is prepared monthly for review by the SANBAG Board of Directors and Policy Committee members.

None

Approved
Plans and Programs Policy Committee

Date:

Moved: *Second:*

In Favor: *Opposed:* *Abstained:*

Witnessed: _____

PLANS AND PROGRAMS POLICY COMMITTEE ATTENDANCE - 2006

Name	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
EAST VALLEY												
Richard Riddell	X	X	X	X	X							
Kelly Chastain	X	X	X	X								
Larry McCallon				X	X							
WEST VALLEY												
Paul Eaton Chair	X		X	X	X							
Mark Nuaimi	X		X									
Diane Williams	X	X	X	X	X							
MT/DESERT												
Kevin Cole	X	X	X	X	X							
Paul Cook	X	X	X		X							
Jim Lindley	X	X	X	X	X							
SAN BERNARDINO COUNTY												
Gary Ovit	X	X		X								
Josie Gonzales	X	X	X		X							
Dennis Hansberger	X		X	X								
Paul Blane	X	X	X	X								
Bill Postmus		X	X	X								

X - indicates member attended the meeting.

Crossed out box indicates member was not on the committee as of that month.

Empty box indicates committee members did not attend the meeting in that month.

Minute Action

AGENDA ITEM: 3

Date: June 21, 2006

Subject: Election of Committee Chair and Vice Chair

Recommendation:* Conduct elections for members to serve as Chair and Vice Chair of the SANBAG Plans and Programs Policy Committee for terms to end June 30, 2007.

Background: Terms for the Chair and Vice Chair of each of the SANBAG policy committees expire on June 30, 2006. Election of Chair and Vice Chair for each of the policy committees is scheduled to immediately follow the annual election of SANBAG Officers, which occurred at the June Board of Directors meeting.

This item provides for an election to be conducted, which will identify the Chair and Vice Chair of the Committee to serve until June 30, 2007. SANBAG policies do not prohibit re-election of the current Chair and Vice Chair, if so determined by the Committee. A complete listing of SANBAG policy committees, membership, and chairs is attached to this item for reference.

Financial Impact: This item has no financial impact upon the SANBAG budget.

Reviewed By: This item is scheduled for action by the Plans and Programs Policy Committee on June 21, 2006.

Responsible Staff: Ty Schuiling, Director of Planning and Programming.

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Approved
Plans and Programs Policy Committee

Date: _____

Moved: _____ *Second:* _____

In Favor: _____ *Opposed:* _____ *Abstained:* _____

Witnessed: _____

Minute Action

AGENDA ITEM: 4

Date: June 21, 2006

Subject: San Bernardino Valley Measure I Audits

Recommendation:* Accept the Measure I Summary Audit Report of Local Pass-Through Funds for the year ending June 30, 2005 for the jurisdictions in the San Bernardino Valley Subregion.

Background: Each year SANBAG provides for audits of all local jurisdictions receiving Measure I Local Pass-Through Funds. The audits examine both financial and compliance issues related to Measure I expenditures. This item contains the draft report summarizing audit findings for each jurisdiction in the Valley area of the county.

To date SANBAG has received audits for every jurisdiction in the San Bernardino Valley subarea with the exception of the City of Colton. The report, not including the City of Colton, indicates that Valley jurisdictions received \$19,920,478 in Measure I revenue and had remaining fund balances of \$39,964,160. Although a number of Valley jurisdictions had non-compliance findings, none were of a material nature.

Financial Impact: This item has no direct impact upon the SANBAG budget. Measure I Local Pass-Through Funds are distributed by SANBAG and held by each local jurisdiction in a special Measure I fund. SANBAG expenses relative to the administration of the

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Approved
Plans and Programs Committee

Date:

Moved: *Second:*

In Favor: *Opposed:* *Abstained:*

Witnessed: _____

Measure I program are consistent with the adopted budget, Task No. 0650400,
Measure I Administration – Valley.

Reviewed By: This item is scheduled for review by the Plans and Programs Committee on
June 21, 2006

Responsible Staff: Ryan Graham, Transportation Planning Specialist

MEASURE I LOCAL PASS-THROUGH FUNDS

2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

The Measure I Local Pass-Through Funds were created as part of the half cent Retail Transactions and Use Tax approved by the voters of San Bernardino County in 1989 to be used for transportation improvements and traffic management. In its capacity as San Bernardino County Transportation Authority, San Bernardino Associated Governments (SANBAG) is responsible for administration of funds and implementation of programs identified in the Measure.

This report provides summary information on revenue and expenditures of the Measure I Local Pass-Through Funds during Fiscal Year 2004-2005 for each of the cities and the County unincorporated areas within each of the Measure I subareas. This report covers the fifteenth year in which Measure I revenue has been distributed to local jurisdictions within San Bernardino County for local transportation projects.

In the Valley subregion of the county, Local Pass-Through Funds are distributed to the cities and County for local street and road projects. Valley jurisdictions receive funds based upon the ratio of their population to the total Valley population. The Mountain/Desert jurisdictions receive Measure I Local Pass-Through Funds to be expended for transportation projects as specified in the Measure, whereby funds are to be expended for local road projects (30%), arterial and regional road projects (65%), and for elderly and handicapped transportation services (5%). Mountain/Desert revenue is allocated to each subarea based upon the funds generated within each subarea and distributed to each jurisdiction within the subarea based upon a formula of 50% population and 50% point of generation.

This summary report provides information relative to both the financial and compliance audits conducted by Miers & Miers, Certified Public Accountants, of twenty-four city funds and the six subarea funds administered by the County. The financial audits consist of examination of financial statements and accounting principles, while the compliance audits examine expenditures to insure conformity with the Measure I Policies adopted by the San Bernardino Associated Governments Board of Directors.

REVENUE

Local jurisdictions receive retail transactions and use tax revenue from San Bernardino Associated Governments each month, based on the allocation formulas contained in the Measure I Expenditure Plans. The revenue is maintained in the Special Measure I Transportation Sales Tax Fund of each local jurisdiction. Interest received from the investment

of these funds is deposited into the special Measure I Fund to be used for transportation projects approved by the governing bodies.

Countywide, Measure I local pass-through revenue increased in 2004/2005 by 14.7% over the prior year. Following is a summary of the Measure I Local Pass-Through Funds distribution and interest accrued during 2004/2005.

LOCAL PASS-THROUGH FUNDS
Year Ending June 30, 2005

SUBREGION	REVENUE	INTEREST	TOTAL REVENUE
Valley*	\$19,920,478	\$1,621,445	\$21,541,923
Mountain/Desert	\$21,751,418	\$2,081,581	\$23,832,999
TOTAL	\$41,671,896	\$3,703,026	\$45,374,922

* Total does not include the City of Colton, which was not available at the time of this report's preparation.

EXPENDITURES AND FUND BALANCES

Expenditures of Measure I Local Pass-Through Funds are made pursuant to the Five Year Capital Improvement Plans and Twenty-Year Transportation Plans adopted annually by the City/Town Councils and the Board of Supervisors. Specific projects funded by the Measure I Local Pass-Through Fund in each jurisdiction are identified in the jurisdictional tables contained in this report. Total expenditures and fund balances remaining on June 30, 2005, are as follows:

SUBREGION	2003-2004 FUND BALANCE	2004-2005 EXPENDITURES	FUND BALANCE June 30, 2005
Valley*	\$35,423,861	\$17,109,404	\$39,964,160
Mountain/Desert	\$37,587,076	\$26,281,787	\$34,794,538
TOTAL	\$73,010,937	\$43,391,191	\$74,758,698

* Total does not include the City of Colton, which was not available at the time of this report's preparation.

MEASURE I LOCAL PASS-THROUGH FUNDS VALLEY SUBREGION 2004/2005 COMPLIANCE ISSUES

In addition to the annual financial audit of each jurisdiction receiving Measure I Local Pass-Through Funds, auditors for San Bernardino Associated Governments also conduct an audit to insure compliance with laws, regulations, and policies governing the use of Measure I Transportation Sales and Use Tax Funds. The following listing identifies the non-compliance issues found in each recipient jurisdiction.

CITY OF CHINO

Current Year: None found.

Prior year: None found.

CITY OF CHINO HILLS

Current Year: None found.

Prior Year: None found.

CITY OF COLTON

Current Year: N/A

Prior Year: N/A

CITY OF FONTANA

Current Year: None found.

Prior Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. This finding has since been resolved.

CITY OF GRAND TERRACE

Current Year: The City is not in compliance with Measure I policies. It has exceeded the categorical project limitation of one-half of annual Measure I revenue for local projects.

Prior Year: The City was not in compliance with Measure I policies. It had exceeded the categorical project limitation of one-half of annual Measure I revenue for local projects. This finding has not been resolved

CITY OF HIGHLAND

Current Year: None found.
Prior Year: None found.

CITY OF LOMA LINDA

Current Year: None found.
Prior Year: None found.

CITY OF MONTCLAIR

Current Year: None found.
Prior Year: None found.

CITY OF ONTARIO

Current Year: The City is not in compliance with Measure I policies. It has exceeded the categorical project limitation of one-half of annual Measure I revenue for local projects.

Prior Year: None found.

CITY OF RANCHO CUCAMONGA

Current Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. It is recommended that the City update its Measure I Five Year Capital Improvement Plan to adjust for changes as they become apparent. The City should also notify San Bernardino Associated Governments of any changes to the Five Year Plan

Prior Year: None found.

CITY OF REDLANDS

Current Year: None found.

Prior Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plane. This finding has since been resolved.

CITY OF RIALTO

Current Year: The City is not in compliance with Measure I policies. It has exceeded the categorical project limitation of one-half of annual Measure I revenue for local projects.

Prior Year: None found.

CITY OF SAN BERNARDINO

Current Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. It is recommended that the City update its Measure I Five Year Capital Improvement Plan to adjust for changes as they become apparent. The City should also notify San Bernardino Associated Governments of any changes to the Five Year Plan.

Prior Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. This finding has not been resolved.

CITY OF UPLAND

Current Year: The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. It is recommended that the City update its Measure I Five Year Capital Improvement Plan to adjust for changes as they become apparent. The City should also notify San Bernardino Associated Governments of any changes to the Five Year Plan.

Prior Year:

1. The City made expenditures from the Measure I fund for projects not on the Five Year Capital Improvement Plan. This finding has not been resolved.
2. The City was not in compliance with Measure I policies. It had exceeded the categorical project limitation of one-half of annual Measure I revenue. This finding has since been resolved

CITY OF YUCAIPA

Current Year: None found.

Prior Year: None found.

COUNTY OF SAN BERNARDINO – VALLEY

Current Year: None found.

Prior Year: None found.

Mountain/Desert Subregion Statistical Table
Measure I Local Pass-Through Summary Audit Table
For the Year Ending June 30, 2005

Jurisdiction	Revenue	Interest*	Total Revenue	Prior Year Balance **	Expenditures	Ending Balance **	Bal/Rev
Adelanto	\$757,370	\$61,566	\$818,936	\$3,547,138	\$530,772	\$3,835,302	506%
Apple Valley***	\$2,152,427	\$499,169	\$2,651,596	\$6,968,842	\$4,303,348	\$5,317,090	247%
Barstow	\$1,708,833	\$103,714	\$1,812,547	(\$151,637)	\$3,284,166	(\$1,852,552)	-108%
Big Bear Lake	\$623,478	\$6,161	\$629,639	(\$236,361)	\$471,058	(\$77,780)	-12%
Hesperia***	\$2,663,142	\$488,084	\$3,151,226	(\$3,627,429)	\$2,441,132	(\$3,016,707)	-113%
Needles	\$232,385	\$39,116	\$271,501	\$664,064	\$469,278	\$466,287	201%
Twentynine Palms	\$781,160	\$47,415	\$828,575	\$2,946,474	\$2,317,707	\$1,442,260	185%
Victorville	\$6,491,988	\$431,521	\$6,923,509	\$17,403,526	\$8,613,657	\$15,713,378	242%
Yucca Valley	\$1,096,107	\$192,815	\$1,288,922	\$75,085	\$543,717	\$820,290	75%
SBCO Colorado River	\$74,744	\$7,279	\$82,023	\$302,195	\$849	\$383,369	513%
SBCO North Desert	\$1,190,975	\$43,425	\$1,234,400	\$1,720,033	\$580,644	\$2,373,789	199%
SBCO Morongo Basin	\$638,251	\$45,887	\$684,138	\$2,314,091	\$710,036	\$2,288,193	359%
SBCO Mountains	\$1,548,370	\$90,274	\$1,638,644	\$3,608,581	\$389,774	\$4,857,451	314%
SBCO Victor Valley	\$1,792,188	\$25,155	\$1,817,343	\$2,052,474	\$1,625,649	\$2,244,168	125%
TOTAL	\$21,751,418	\$2,081,581	\$23,832,999	\$37,587,076	\$26,281,787	\$34,794,538	160%

* May include reimbursements to Measure I fund and other revenue transferred in.

** Negative fund balances indicate debt associated with participation in SANBAG bonding program.

*** Apple Valley and Hesperia's audits were not yet final at the time of this report's preparation. The values listed in the report reflect the values listed in their draft audits.

Valley Subregion Statistical Table
Measure I Local Pass-Through Summary Audit Table
For the Year Ending June 30, 2005

Jurisdiction	Revenue	Interest*	Total Revenue	Prior Year Balance	Expenditures	Ending Balance	Bal/Rev
Chino	\$1,059,706	\$9,648	\$1,069,354	(\$57,069)	\$937,644	\$74,611	7%
Chino Hills	\$1,124,246	\$35,159	\$1,159,405	\$1,534,431	\$579,579	\$2,114,257	188%
Colton**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fontana	\$2,283,704	\$119,538	\$2,403,242	\$3,584,280	\$2,207,514	\$3,780,008	166%
Grand Terrace	\$179,160	\$1,718	\$180,878	\$117,226	\$166,187	\$131,917	74%
Highland	\$724,710	\$33,252	\$757,962	\$1,333,547	\$362,350	\$1,729,159	239%
Loma Linda	\$308,344	\$5,752	\$314,096	\$227,017	\$264,200	\$276,913	90%
Montclair	\$509,246	\$38,106	\$547,352	\$1,459,843	\$7,154	\$2,000,041	393%
Ontario	\$2,461,207	\$137,309	\$2,598,516	\$4,791,828	\$3,874,945	\$3,515,399	143%
Rancho Cucamonga	\$2,283,754	\$299,514	\$2,583,268	\$5,189,866	\$1,169,246	\$6,603,888	289%
Redlands	\$1,009,873	\$114,562	\$1,124,435	\$4,716,369	\$622,816	\$5,325,798	527%
Rialto	\$1,438,219	\$51,840	\$1,490,059	\$2,053,698	\$1,339,988	\$2,203,769	153%
San Bernardino***	\$2,876,593	\$219,776	\$3,096,369	\$4,503,870	\$2,512,786	\$5,087,453	177%
Upland	\$1,065,610	\$142,203	\$1,207,813	\$1,767,609	\$162,376	\$2,813,046	264%
Yucaipa	\$698,767	\$8,119	\$706,886	\$446,165	\$1,061,399	\$91,652	13%
SBCO Valley	\$1,897,339	\$404,949	\$2,302,288	\$3,755,181	\$1,841,220	\$4,216,249	222%
TOTAL	\$19,920,478	\$1,621,445	\$21,541,923	\$35,423,861	\$17,109,404	\$39,964,160	201%

* May include reimbursements to Measure I fund and other revenue transferred in.

** Colton's draft audit was not yet available at the time of this report's preparation.

*** San Bernardino's audit was not yet final at the time of this reports preparation. The values listed in the report reflect the values listed in its draft audit.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
CHINO	\$1,059,706	\$9,648	\$1,069,354	(\$57,069)	\$937,644	Total Expenditures	\$74,611
					\$480,480	City-wide, various locations, AC pavement repair, miscellaneous street/traffic maintenance	
					\$63,413	City-wide, various locations, concrete repair, miscellaneous street/traffic maintenance	
					\$7,602	Walnut Ave./Yorba Ave., traffic signal	
					\$8,825	Riverside Dr./10th St., traffic signal	
					\$40,650	ITS Infrastructure Phase 1, traffic signal communications	
					\$194,564	Edison Ave./Yorba Ave., traffic signal	
					\$108,000	Cypress Ave./Walnut Ave., traffic signal	
					\$34,110	Downtown Transportation Facility, Phase 1	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
CHINO HILLS	\$1,124,246	\$35,159	\$1,159,405	\$1,534,431	\$579,579	Total Expenditures	\$2,114,257
					\$233,462	Overlay/slurry seal program, FY 2003-2004	
					\$3,690	Overlay/slurry seal program, FY 2004-2005	
					\$53,188	Sidewalk replacement program, FY 2003-2004	
					\$83,161	Sidewalk replacement program, FY 2004-2005	
					\$85,172	Striping program, FY 2004-2005	
					\$32,954	Chino Ave./Eagle Canyon Dr., traffic signal	
					\$87,952	Peyton Dr./Frost Ave., traffic signal	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
FONTANA	\$2,283,704	\$119,538	\$2,403,242	\$3,584,280	\$2,207,514	Total Expenditures	\$3,780,008
					\$224,405	Cherry Ave./Foxridge Dr., traffic signal	
					\$89,887	Etiwanda Ave./Philadelphia Ave., traffic signal	
					\$105,763	Orange Way/Juniper Ave., traffic signal	
					\$240,644	Sierra Ave./Jurupa Ave to Summit, Sierra Fiber Optics Grant	
					\$233,294	Tokay Ave./Foothill Blvd., traffic signal and roadway modifications	
					\$101,593	Alder Ave./San Bernardino Ave., traffic signal (City share)	
					\$167,184	Banana Ave./Jurupa Ave., traffic signal (City share)	
					\$2,060	Cherry Ave./Miller Ave., traffic signal and interconnect	
					\$21,045	Cherry Ave./Myer Cyn., traffic signal and interconnect	
					\$121,422	Hemlock Ave./Valley Blvd./Fontana Ave., traffic signal (City share + ROW)	
					\$3,230	Foothill Blvd./Maple Ave., traffic signal and modification (City share)	
					\$321	Sierra Ave. left turn lanes, traffic signal modifications	
					\$293,094	Beech Ave., east of Cherry Ave. to I-15, roadway widening and sidewalk	
					\$926	Etiwanda Ave./Slover Ave., intersection modifications (design only)	
					\$39,077	Alder Ave./Randall Ave., traffic signal	
					\$40,605	Alder Ave./Merrill Ave., traffic signal	
					\$81,306	City-wide sidewalk installation	
					\$21,302	Citrus Ave./Valley to Foothill, traffic signal interconnect	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
FONTANA (continued)					\$188,147	City-wide Measure I system, traffic signal communications system	
					\$3,060	City-wide Measure I system, computerized signal coordination and traffic control equipment	
					\$146,576	City-wide Measure I system, computerized signal coordination and traffic control equipment	
					\$26,214	City-wide Measure I system, computerized signal coordination and traffic control equipment	
					\$56,359	Alder Ave./Foothill Blvd., traffic signal modification, sidewalk improvements	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
GRAND TERRACE	\$179,160	\$1,718	\$180,878	\$117,226	\$166,187**	Total Expenditures	\$131,917
					\$166,187	Local projects: city-wide slurry program	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures exceeded the categorical project expenditure limitation of one-half of annual Measure I revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
HIGHLAND	\$724,710	\$33,252	\$757,962	\$1,333,547	\$362,350	Total Expenditures	\$1,729,159
					\$362,350	Various locations, pavement rehabilitation	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
LOMA LINDA	\$308,344	\$5,752	\$314,096	\$227,017	\$264,200	Total Expenditures	\$276,913
					\$146,171	Beaumont Ave. bridge widening	
					\$1,100	Mt. View Ave. bridge widening	
					\$638	Redlands Blvd./Richardson St., traffic signal	
					\$116,291	West of Campus St. and south of railroad, slurry seal, Phase IV	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
MONTCLAIR	\$509,246	\$38,106	\$547,352	\$1,459,843	\$7,154	Total Expenditures Misson Blvd./east of Ramona Ave./east of Monte Vista Ave., curb, gutter and sidewalk construction; median and parkway landscaping; storm drain construction; signal modifications; and pavement rehabilitation.	\$2,000,041

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
ONTARIO	\$2,461,207	\$137,309	\$2,598,516	\$4,791,828	\$3,874,945	Total Expenditures	\$3,515,399
					\$1,319,016**	Arterial street maintenance, city-wide	
					\$1,247	Pavement Management System	
					\$256,068	Riverside Dr., Phase II reconstructions, Cucamonga Creek to Milliken Ave., miscellaneous shoulder widening and pavement rehabilitation	
					\$519,572	Walnut St./Fern Ave. to Imperial Ave., pavement rehabilitation	
					\$283,546	Fifth St./Mountain Ave. to San Antonio Ave., pavement rehabilitation	
					\$9,282	Fourth St./El Dorado Ave., new traffic signal	
					\$273,327	Etiwanda Ave./Airport Dr. to Jurupa St., pavement rehabilitation	
					\$705,302	Riverside Dr./Euclid Ave. to Walker Ave., pavement rehabilitation	
					\$169,440	Jurupa St./Turner to Milliken, pavement rehabilitation	
					\$135,295	Various locations, traffic signal LED retrofit	
					\$202,850	Milliken Ave./Jurupa St., pavement rehabilitation	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures exceeded the categorical project expenditure limitation of one-half of annual Measure I revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
RANCHO CUCAMONGA	\$2,283,754	\$299,514	\$2,583,268	\$5,189,866	\$1,169,246	Total Expenditures	\$6,603,888
					\$31,858	Local streets, city-wide, pavement rehabilitation	
					\$111,691	Haven Ave./Baseline to Highland PH1, widen west side, pavement rehabilitation and widening	
					\$322,366	Grove Ave./8th to Foothill, pavement rehabilitation	
					\$101,088	Hermosa Ave./north of Baseline to north of railroad, pavement rehabilitation and widening and storm drain	
					\$107,816	Carnelian St./Vivero to north of Baseline, pavement rehabilitation	
					\$85,986	ADA corrective measures, city-wide, intersection ramps and driveway modifications	
					\$7,877	Archibald Ave./Baseline to 19th St., pavement rehabilitation	
					\$294,486	Arrow Rte./Archibald to Hermosa, pavement rehabilitation	
					\$275,934	Hermosa Ave./Highland to Banyan, pavement rehabilitation and widening	
					\$21,039**	Bus bays	
					\$5,273	Hellman Ave./west of Hellman Ave. to Amethyst St., storm drain and street widening	
					\$3,938	Baseline/Haven/Deer Creek, pavement rehabilitation	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
RANCHO CUCAMONGA (Continued)					\$3,938	Church/Archibald/Hermosa, pavement rehabilitation	
					\$6,345	Sapphire/19th to Banyan, pavement rehabilitation	
					\$5,243**	Arrow/Etiwanda, signal modification	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures not authorized per the City's Measure I Five Year Capital Improvement Plan

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
REDLANDS	\$1,009,873	\$114,562	\$1,124,435	\$4,716,369	\$622,816	Total Expenditures	\$5,325,798
					\$45,455	Church St./Clark St. to Colton Ave., right- of-way acquisition	
					\$284,205	Various locations, traffic signal improvements (New York, Tennessee, Lugonia)	
					\$24,314	Cypress Ave., reconstruct crosswalk and access ramps	
					\$249,955	Redlands Blvd./Alabama St., street improvements	
					\$18,887	Various locations, street resurfacing	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
RIALTO	\$1,438,219	\$51,840	\$1,490,059	\$2,053,698	\$1,339,988	Total Expenditures	\$2,203,769
					\$339,343	Various streets, street resurfacing project, pavement rehabilitation, 1" overlay	
					\$168,315	Bohnert/Willow/Lilac/Etiwanda/Various locations, street reconstruction, resurfacing, 1 1/2" overlay	
					\$596,307**	Riverside/Eucalyptus/Sycamore/Pepper/Various locations, street reconstruction, resurfacing, 2" overlay	
					\$161,521	Riverside/Various locations, street widening	
					\$5,670	Wilson St., street improvement	
					\$6,434	Bemis Elementary (Safe Route to Schools) intersection improvements	
					\$7,027	Riverside I-10 Interchange, interchange improvements	
					\$1,723	City-wide, curb, gutter and sidewalks	
					\$25,244	City-wide, new traffic signal	
					\$2,696	City-wide, Pavement Management System (PMS)	
					\$28,845	City-wide transportation model	
					\$400	SR-210 Detour Route, traffic signal coordination, before/after analysis	
					\$4,463	City-wide, Right of Way valuation and Management System	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures exceeded the categorical project expenditure limitation of one-half of annual Measure I revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO	\$2,876,593	\$219,776	\$3,096,369	\$4,503,870	\$2,512,786	Total Expenditures	\$5,087,453
					\$57,686	Campus Parkway, new street	
					\$137,439	Rialto Ave./BNSF grade crossing, widen	
						Rialto Ave at grade crossing	
					\$288,600	Mt. Vernon Bridge, grade separation,	
						bridge over BNSF yard	
					\$69,299	Various locations, street and safety	
						improvement	
					\$642	40th St./Acre Ln. to Electric Ave., widen	
						street (design)	
					\$3,008	9th St./H St to Sierra Way (ph II),	
						pavement rehabilitation	
					\$292	Del Rosa Dr./6th St to Base Line St., widen	
						to four lanes (design only)	
					\$650,598	Various locations, disabled access ramps	
					\$86	Mountain Ave./39th to 40th, construct curb,	
						gutter and sidewalk	
					\$21,441	University Pkwy./I-215, interchange	
						preliminary study	
					\$16,404	Various locations, miscellaneous repairs	
					\$9,021	June St./June Pl. to Cajon Blvd., pavement	
						rehabilitation	
					\$62	3rd St./K to Mt Vernon Ave. Viaduct,	
						pavement rehabilitation	
					\$30,118	Various locations, install concrete pads at	
						bus stop	
					\$5,533	Roosevelt, Arrowhead, Burbank, and N.	
						Verde, ADA access improvements	
					\$7,167	Various locations, repair guardrail	
					\$45	Rancho Ave./railroad tracks S. of Foothill,	
						construct median	
					\$76,635	California St./Base Line St. to Washington,	
						pavement rehabilitation	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO (continued)					\$108	Various locations, pavement rehabilitation for two lanes west of gass company	
					\$9,873	Base Line St./Warm Creek, repair railing	
					\$58	Rialto Ave./Lytle Creek, repair railing	
					\$81	Flores St./30th St./Gardena St./Darby St./Glenview Ave./Pennsylvania Ave., apply Type II slurry seal	
					\$34,949	21st St./Waterman to east of Valencia Ave., mill and overlay	
					\$78,038	E St./Hunts Ln. to south of Santa Ana Bridge, mill and overlay	
					\$2,375	Kendall Dr. Lane extension, University Pkwy., missing sidewalk	
					\$5,739	University Pkwy./I-215, interchange improvements	
					\$7,931	Inland Center Dr./I-215 Freeway widening	
					\$11,643	Victoria Ave./Richardson, sidewalk and AC ramp improvements	
					\$4,438	Waterman Ave./18th St., widening	
					\$218,077	5th St./H St. to Waterman, mill and overlay	
					\$23	Highland Ave./Del Rosa Channel, widening	
					\$853**	Campus Parkway, property acquisition	
					\$82,728	Lynwood Dr./Valencia Ave. to Harrison, mill and overlay	
					\$23,921	Sierra Way/39th to 40th, mill and overlay	
					\$32	Alabama/City Creek, construct new bridge	
					\$842	Lena Rd. extension/Mill to Orange Show, new street construction	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO (continued)					\$574	Little Mtn./48th St. to Devil Canyon Creek, widening/sidewalk	
					\$309,589	Hospitality Ln./Carnegie Dr. to Tippecanoe, signal modification and street improvement	
					\$132,163**	Santa Fe Depot, rehabilitation of building	
					\$82	Pepper Ave./Birch St. to Mill St., pavement rehabilitation	
					\$6,583	3rd St./Waterman to Tippecanoe, pavement rehabilitation	
					\$38,614**	Palm Ave./BNSF, grade separation	
					\$5	Heritage Ln. Hunts Ln. to Foxcroft, pavement rehabilitation (design only)	
					\$59	Waterman Ave./Frontage Rd./Commercial to Industrial Rd., pavement rehabilitation	
					\$26,777	Waterman Ave./Commercial to Vanderbilt, pavement rehabilitation	
					\$679	Victoria Ave./Lynwood Dr., install traffic signal	
					\$54,057	Various locations, street improvements	
					\$12	Little Mtn./north or 27th to Kendall, pavement rehabilitation	
					\$22,548	Harriam Pl. realignment, Phase IIA & B	
					\$112	Tr. 12958, asphalt overlay	
					\$6,844	Highland Ave./Waterman to Valencia, mill and overlay	
					\$7,111	Mt Vernon Ave./Base Line St to 16 St., cold mill and overlay	
					\$160	Waterman Ave./Ennis, mill and overlay	
					\$7,635	Gilbert St./Morse St. to east of Canyon Rd., mill and overlay	
					\$18,246	Highland Ave./Sterling Ave. to Golden Ave., mill and overlay	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO (continued)					\$262	Industrial Rd./Steele Rd. 1 to Commercial, pavement rehabilitation	
					\$24,889**	Richardson/Hardt asphalt, street improvements	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures not authorized per the City's Measure I Five Year Capital Improvement Plan

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
UPLAND	\$1,065,610	\$142,203	\$1,207,813	\$1,767,609	\$162,376	Total Expenditures	\$2,813,046
					\$6,241	Campus Ave./20th St. street construction	
					\$22,434	Benson Ave./I-10, street overlay	
					\$4,727	Veterans Ct./west end to 13th Ave., street reconstruction	
					\$5,787	13th Ave./Memorial Ct. to 13th St., street reconstruction	
					\$64,087**	City-wide street reconstruction, 2003-04	
					\$6,206	21st St., widening west of Campus Ave., street reconstruction	
					\$49,582	West St. to 5th St., street rehabilitation	
					\$3,312	Cul-de-sac on 20th St., west of Campus Ave., street construction	

* May include reimbursements to the Measure I Fund and other revenue.

** Expenditures not authorized per the City's Measure I Five Year Capital Improvement Plan

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
YUCAIPA	\$698,767	\$8,119	\$706,886	\$446,165	\$1,061,399	Total Expenditures	\$91,652
					\$712,016	Yuciapa Blvd./4th St. to 5th St./14th St. to Tennessee St./11th St. to 14th St./2nd St. to 4th St., street overlay and rehabilitation	
					\$349,383	County Line Rd./1-10 to 2nd St. and miscellaneous residential streets, slurry seal/cape seal	

* May include reimbursements to the Measure I Fund and other revenue.

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO COUNTY	\$1,897,339	\$404,949	\$2,302,288	\$3,755,181	\$1,841,220	Total Expenditures	\$4,216,249
					\$1,964	Adams St./Macy St. east/California St., slurry seal	
					\$117,006	Arrow Rte./Redwood Ave., construct signal	
					\$694	Arrow Rte./Hickory Ave. east/Beech Ave., rehabilitation	
					\$13,802	Banyan Ave. and others, rehabilitation	
					\$19,798	Beech Ave./Valley Blvd./Randall Ave., resurface	
					\$86,460	Cajon Blvd./Kenwood north 0.29 mi. northwest, Cleghorn, guardrail, signing	
					\$23,306	Cedar Ave./Jurupa Ave., construct signal	
					\$532	Cedar Ave./Randall Ave., construct signal	
					\$116,180	Ferndale Ave. and others/0.02 mi. south, 36th St. (SBO CL), Necho Dr., slurry seal	
					\$7,681	Hawthorne Ave. and others, slurry seal	
					\$3,229	Orchid Dr. and others, slurry seal	
					\$12,117	Pecan Ave., and others, rehabilitation	
					\$25,848	Second Ave. Gray St. east/Cajon Blvd., AC overlay	
					\$192,411	Slover Ave./Calabash Ave./Banana Ave., drainage improvements	
					\$16,255	Valley Blvd./Redwood Ave., construct signal	
					\$17,751	Valley Blvd./Cypress Ave., construct signal	
					\$37,002	Valley Blvd./Oleander Ave., construct signal	
					\$12,373	Valley Blvd./Live Oak, construct signal	

MEASURE I LOCAL PASS-THROUGH FUNDS - VALLEY
2004-2005 SUMMARY AUDIT REPORT FOR THE PERIOD ENDING JUNE 30, 2005

JURISDICTION	MEASURE I REVENUE	INTEREST*	TOTAL REVENUE	PRIOR YEAR FUND BALANCE	EXPENDITURES	PROJECTS	YEAR END FUND BALANCE
SAN BERNARDINO COUNTY (continued)					\$8,879	Valley Blvd./Banana Ave./Almond Ave., construct left turn lane	
					\$138,285	Various roads, Muscoy area, AC Overlay	
					\$9,565	Arden Ave./0.07 mi. north, Highland north/0.11 mi. north, Lynwood, AC overlay	
					\$272	Arrow Rte./Beech Ave., construct signal	
					\$32,957	Arrow Rte./Central Ave. east/Benson Ave., widen overlay	
					\$6,618	Citrus Ave./Wabash Ave. east/Crafton Ave., AC overlay	
					(\$10)	Institution Rd./Glen Helen parking lot east 0.40 mi., AC overlay	
					\$385	Kendall Dr./0.019 mi. northwest, Palm Ave. northwest Cajon Blvd., rehabilitation	
					\$3,376	Lytle Creek Rd./Glen Helen Pkwy. North/Lytle Creek Ranger Station, AC overlay	
					\$13,498	Maple Ave./Barbee St. north Fontana City Limits, rehabilitation	
					\$5,466	Meadow Ln. and others/0.06 mi. west, Sycamore Dr. east and north/Pollard Dr., slurry seal	
					\$5,380	Mount Baldy Rd./Ice House Canyon Rd. northeast/parking lot, SC3000 overlay	
					\$69	Ramona Ave./0.03 mi. north, Philadelphia Ave./Phillips Ave., rehabilitation	
					(\$356)	Reche Canyon Rd./Westwood St./Prado Ln.	
					\$912,447	Slover Ave./Cherry Ave./Sierra Ave., rehabilitation, widen	

* May include reimbursements to the Measure I Fund and other revenue.

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- San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
 - San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies
-

Minute Action

AGENDA ITEM: 5

Date: June 21, 2006

Subject: Amendment to Contract 06-012 with Arthur Bauer & Associates for conducting the Transportation Development Act (TDA) Triennial Performance Audits of the County Transportation Commission and six transit operators/claimants.

Recommendation:* Approve Amendment Number 1 to Contract 06-012 with Arthur Bauer and Associates, extending the time of performance to March 7, 2007; amending the scope of work to include Phase II, Development of Omnitrans Cost Allocation Methodology; and increasing the contract authority by \$21,315.00 as identified in the Financial Impact Section.

Background: This is an amendment to an existing contract. In October 2005, the Board approved Contract 06-012 with the firm of Arthur Bauer & Associates to conduct the TDA Triennial Performance Audit of the San Bernardino County Transportation Commission and the following six transit operators/claimants: Cities of Barstow and Needles, Morongo Basin Transit Authority, Mountain Area Regional Transit Authority, Omnitrans and Victor Valley Transit Authority. The term of the contract will expire on June 30, 2006.

The performance audits for the six transit operators/claimants have either been completed or submitted as drafts. It is expected that all of the transit operator/claimant performance audits will be completed by the end of June;

*

Approved
Administrative Committee

Date: _____

Moved: _____

Second: _____

In Favor: _____

Opposed: _____

Abstained: _____

Witnessed: _____

however the presentation to some of the governing boards will not occur until July. The commission audit has been submitted as a draft and will most likely be presented to the Administrative Committee and Board in July and August respectively.

Contract 06-012 anticipated that as a result of the transit operator/claimant performance audits, there may be additional Phase II work that would be mutually agreed to by the commission, the affected transit operator/claimant, and the consultant. The performance audit for Omnitrans contains a recommendation that a cost allocation methodology be developed that would allow for the recovery of administrative expenses associated with managing discretionary grants with subgrantees, charge direct and indirect expenses associated with managing their own capital grants, and allocating operating expenses between the various types of transit services either provided directly or under contract. Amendment Number 1 amends the Scope of Work to include this Phase II work and extends the time of performance to March 7, 2007.

The budget for the Phase II work referenced above is \$38,750. Contract 06-012 has a contract authority of \$106,000. Of that amount, \$88,565 was identified as the budget for the Phase I audit work (the commission audit and six transit operator/claimant audits), leaving a remainder of \$17,435. The additional funding required for the Phase II budget will be provided by reducing the auditing expenses under Task 50207000 – TDA Administration by \$21,315 and increasing the consulting fees in the same task by a like amount. Amendment Number 1 will increase the total contract authority by \$21,315 for a new not to exceed total of \$127,315.

Financial Impact: This item is consistent with the adopted Fiscal Year 2006/2007 budget; however a transfer of \$21,315 from auditing expenses to consulting fees is required under Task 50207000 – TDA Administration.

Reviewed By: This item has been reviewed by SANBAG Counsel and is scheduled to be reviewed by the Plans and Programs Committee on June 21, 2006.

Responsible Staff: Michael Bair, Director of Transit and Rail Programs
Victoria Baker, Senior Transit Analyst

AMENDMENT NO. 1

TO CONTRACT 06-012

WITH ARTHUR BAUER & ASSOCIATES, INC.

THIS AMENDMENT NUMBER 1 to Contract 06-012 is hereby made entered into and effective this 5th day of July, 2006 by and between the SAN BERNARDINO ASSOCIATED GOVERNMENTS (hereinafter referred to as "COMMISSION") and the ARTHUR BAUER & ASSOCIATES, INC. (hereinafter referred to as "CONTRACTOR") with regard to preparing Phase II of the Triennial Performance Audit, Development of Omnitrans Cost Allocation Methodology.

WHEREAS, COMMISSION and CONTRACTOR previously entered into Contract 06-012 on October 5, 2005, to conduct a triennial performance audit of COMMISSION, Omnitrans, Victor Valley Transit Authority, Morongo Basin Transit Authority, and Mountain Area Regional Transit Authority and the Cities of Barstow and Needles; and

WHEREAS, COMMISSION anticipated that as a result of the transit operator performance audit, there may be additional Phase II work that would be mutually agreed to by the COMMISSION, affected transit operator, and the CONTRACTOR.

WHEREAS, COMMISSION desires to amend the Scope of Work for Contract 06-012 to include Phase II: Development a Cost Allocation Methodology for Omnitrans as identified in the Omntirans Triennial Performance Audit, and

WHEREAS, CONTRACTOR has prepared an amendment to the Triennial Performance Audit Scope of Work attached as Appendix A-1, addressing the desires of COMMISSION and which COMMISSION hereby agrees to.

NOW THRERFORE, it is agreed that Contract 06-012 is amended to include the following:

Section 1 Contractor Services is amended to include the Proposed Amendment – Triennial Performance Audit Phase II Scope of Work (Appendix A-1) attached hereto and incorporated herein.

Section 2 Term is amended to extend the time of contract performance to March 7, 2007.

Section 3 Compensation is amended to increase payment to CONTRACTOR by an amount not to exceed Twenty-One Thousand Three Hundred and Fifteen Dollars (\$21,315) for a new not to exceed amount of One Hundred Twenty-seven Thousand Three Hundred and Fifteen (\$127,315.00).

All other terms and conditions contained in Contract 06-012 shall remain in full force and effect.

IN WITNESS THEREOF, the authorized parties have signed below;

AGENCY:

CONTRACTOR:

**SAN BERNARDINO
ASSOCIATED GOVERNMENTS**

**ARTHUR BAUER AND
ASSOCIATES, INC.**

Dennis Hansberger
President

Approved as to Form:

Jean-Rene Basle
SANBAG Counsel

SANBAG Contract No. 06-012-1
by and between
San Bernardino Associated Governments

and
Arthur Bauer & Associates, Inc.
for

Conduction the Transportation Development Act Triennial Performance Audit for the County Transportation Commission, MBTA, MARTA, Omnitrans, VVTA & the Cities of Barstow & Needles

FOR ACCOUNTING PURPOSES ONLY			
<input checked="" type="checkbox"/> Payable <input type="checkbox"/> Receivable	Vendor Contract # _____	Retention: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Original <input checked="" type="checkbox"/> Amendment
Notes:			
Original Contract: \$ <u>106,000.00</u> Contingency Amount: \$ _____	Previous Amendments Total: \$ _____ Previous Amendments Contingency Total: \$ _____ Current Amendment: \$ <u>21,315.00</u> Current Amendment Contingency: \$ _____		
Contingency Amount requires specific authorization by Task Manager prior to release			
Contract TOTAL →			\$ <u>127,315.00</u>
Please include funding allocation for the original contract or the amendment			
<u>Task</u>	<u>Cost Code</u>	<u>Funding Sources</u>	<u>Amounts</u>
1 <u>5020700</u>	<u>5520</u>	1 <u>LTF Administration</u>	\$ <u>21,315.00</u>
2 _____	_____	2 _____	\$ _____
Original Board Approved Contract Date: <u>10/5/05</u> Contract Start: <u>10/5/05</u> Contract End: <u>6/30/06</u>			
New Amend. Approval (Board) Date: <u>7/5/06</u> Amend. Start: <u>7/5/06</u> Amend. End: <u>3/7/07</u>			
If this is a multi-year contract/amendment, please allocate costs among fiscal years:			
Fiscal Year: 2004-05		Fiscal Year: 2005-06	
		Fiscal Year: 2006-07	
Is this consistent with the adopted budget? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If no, has the budget amendment been submitted? <input type="checkbox"/> Yes <input type="checkbox"/> No			
CONTRACT MANAGEMENT			
Please mark an "X" next to all that apply:			
<input type="checkbox"/> Intergovernmental <input checked="" type="checkbox"/> Private <input checked="" type="checkbox"/> Non-Local <input type="checkbox"/> Local <input type="checkbox"/> Partly Local			
Disadvantaged Business Enterprise: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes _____ %			
Task Manager: Michael Bair		Contract Manager: Michael Bair	

Task Manager Signature

Date

Contract Manager Signature

Date

Chief Financial Officer Signature

Date

Filename: A060121-vlb.doc

A060121-vlb
050207000



Arthur Bauer &
Associates, Inc.
Consultants in
Public Policy & Finance
Systems Planning
Management Analysis

555 Capitol Mall, Suite 455
Sacramento, CA 95814
916-442-2905
916-442-8218 Fax
bauer-consulting.com

June 5, 2006

Michael Bair
Director of Rail and Transit Programs
SANBAG
1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410

**RE: PROPOSAL TO PREPARE TRANSIT COST
ALLOCATION METHODOLOGY**

Dear Mike:

Arthur Bauer & Associates, along with Pacific Municipal Consultants, is pleased to submit this proposal to prepare a transit cost allocation methodology for Omnitrans. This proposed work effort constitutes Phase II of SANBAG Contract Number 06-012 between San Bernardino Associated Governments and Arthur Bauer & Associates for conducting the Transportation Development Act Triennial Performance Audit.

During the course of conducting the audit, it was identified that Phase II work would include development of a cost allocation methodology for Omnitrans that complies with Federal cost allocation principles and guidelines for federal grantees. The proposed methodology identifies the process and steps required for Omnitrans, as a direct Federal recipient, to properly allocate certain cost for obtaining, administering and monitoring federal transit capital grants for itself and also on behalf of the subgrantee transit recipients in the County. A second aspect of the methodology includes an allocation plan for distributing Omnitrans central services costs (e.g. CEO, Finance and Accounting) among the agency's cost centers.

Background

Omnitrans is a direct recipient of Federal Transit Administration (FTA) Grants that provide critical funding for transit services. Omnitrans also acts as a pass-through agency (primary recipient) of the FTA grants for several other transit operators (subrecipients) in the County. Omnitrans recently hired a Grants Manager to conduct and manage these activities, which include administering and monitoring the grants to ensure both Omnitrans and the subrecipient transit operators are in compliance with the grant

Mr. Michael Bair
June 5, 2006

requirements. These services come with a cost to Omnitrans in terms of the staff and resources (both direct and indirect) to provide on-going grant monitoring.

Federal guidelines permit the grantor to recover its fair share of cost through the grant. The fair share is accomplished through development of an indirect cost allocation plan that complies with the Office of Management and Budget Circular A-87 titled, "Cost Principles for State, Local and Indian Tribal Governments". OMB A-87 establishes principles and standards for determining costs for Federal awards carried out through grants, cost reimbursement contracts, and other agreements with State and local governments and federally recognized Indian tribal governments. Omnitrans, a Joint Powers Authority comprised of municipalities including cities and San Bernardino County, is an agency of local government and is recognized under this provision.

The development of an indirect cost allocation methodology relating to grants is one aspect of this proposal endeavor. After costs for grants are allocated, a second tier effort is the allocation of Omnitrans operational costs among the agency's cost centers. These costs are distributed using a separate methodology that accounts for factors such as direct versus indirect costs, and fixed versus variable costs. The full cost of providing transit service is allocated using these factors and spread among fixed route and paratransit services. As Omnitrans is required to report similar costs in the annual Federal National Transit Database (NTD), the allocation methodology will reflect closely to the guidelines stipulated in the NTD.

Work Program

Task 1: Conduct Startup Meeting and Initiate Data Collection

We will meet with SANBAG and Omnitrans to discuss the scope of services, assumptions, timelines and roles of the various stakeholders in this project. The startup meeting will help to verify expectations of the project, establish clear channels of communication, and identify key department participants.

Task 2: Collect and Review Relevant Documentation

We will work with the agencies to collect available data and to develop additional data required to support the cost allocation methodology. This would include meeting with Omnitrans staff to understand their current methods of cost development and allocation. Documentation that will be collected and reviewed include OMB Circular A-87, FTA Circular 5010.1C, National Transit Database Reporting Manual, Omnitrans cost reporting structure, and other pertinent documentation. Contact with the Regional FTA Administration Office would also be conducted to confirm data assumptions.

Task 3: Prepare Cost Allocation Plan

The development of a full cost allocation plan is divided into two phases. The first phase is development of an indirect cost plan for federal capital grant awards. The second

Mr. Michael Bair
June 5, 2006

phase is development of a cost allocation plan for distributing operational costs among the cost centers and transit services provided by Omnitrans. Each is discussed as separate subtasks.

Task 3.1: Prepare Indirect Cost Plan

The indirect cost plan will be in compliance with the methods established in OMB Circular A-87. The guidelines provide for the types of allowable and unallowable costs in the formulation of the indirect cost rate. We will account for the distinction between these costs. We will review the allocation methods contained in A-87 and select the ideal method that best fits the data collected from the prior tasks. The method of allocation determines the rate of reimbursement that Omnitrans could apply to federal grants. Allocation methods include a short form method, a multiple allocation base method, or variations of one of these. In general, the methods determine the allocation according to the degree of benefit each central services department (e.g. CEO/Finance and Accounting) provides to each agency function.

The general steps to determine an indirect cost rate associated with grant activity include the following:

- Determine the allowable costs for each central services department.
- Determine the base for the allocation of central services costs. For example, accounting costs could be based on number of transactions processed.
- Determine a ratio of indirect to direct costs.
- Establish an indirect cost rate.

The indirect cost rate is applied on top of the direct cost which forms the fully allocated cost against grant activity. Spreadsheets will be developed that document the flow of the allocation process and identify where updates to the rate could be made if conditions change. A report on the methodology will also be provided.

Task 3.2: Prepare Operational Cost Allocation Plan

After costs for capital grant activity are accounted for, a second cost allocation plan is required that distributes all operational costs for the transit system. These costs include central department costs that support operations and maintenance for both fixed route and paratransit. The fixed route costs will include directly operated services, while paratransit (Omnalink and Access) will include contracted services. Similar to the indirect cost plan, an allocation method consistent with A-87 will be selected dependent on the data reviewed in prior tasks.

The cost allocation plan will differentiate between indirect and direct costs, and fixed and variable costs. Direct costs are generally attributed to the operations and

Mr. Michael Bair
June 5, 2006

maintenance departments. Fixed costs are those that are not directly tied to the volume of transit service provided, including administrative costs, non-vehicle maintenance and other related overhead activities. Variable costs are those incurred based on the level of service, such as fuel, operator wages, and spare parts.

The determination of direct cost for fixed route and paratransit will provide the base for which an indirect rate or indirect cost amount is developed and applied to the two transit services. This determination is significant, as it relates to how operating expenses are allocated between the services and the calculation of the farebox ratio. The allocation plan will account for the farebox requirements of 20 percent for general public transit, and 10 percent for specialized senior and disabled paratransit, and be structured in this manner while complying with cost allocation principles. Omnitrans has a current allocation method for contracted services, which will be reviewed for applicability. However, we will follow the federal guidelines for cost allocation and make appropriate adjustments as necessary.

We will also review the requirements for financial reporting in the Federal NTD. Given this is an annual requirement for Omnitrans to prepare, we will determine the relationships between the NTD reporting structure and the cost allocation methodology. Ideally, the cost allocation should follow the NTD financial module for consistency purposes. We will analyze how the NTD financial module treats overhead-type costs and whether they are consistent with the A-87 cost allocation requirements.

Spreadsheets will be developed that document the flow of the allocation process and identify where updates to the variables could be made if conditions change. A report on the methodology will also be provided.

Task 4: Test and Review Cost Allocation Methodology

Upon the development of allocation methods, we will conduct testing of the models using recent Omnitrans financial data and determine any adjustments, if necessary, to the assumptions and inputs. We will meet with SANBAG and Omnitrans to review the allocation methodologies and test results and receive feedback.

Task 5: Prepare Draft and Final Methodology

A draft report documenting the methodology, assumptions and input will be provided, along with the spreadsheets of model data. We will seek review and comment by SANBAG and Omnitrans. A final report will be developed that incorporates the comments received. Electronic copies and a CD of the report with spreadsheets will be provided.

We will also be available for a presentation to the SANBAG Board and Omnitrans Board.

Mr. Michael Bair
June 5, 2006

Task 6: Provide Training On Use of Cost Allocation Model

We will conduct a one-day training session at Omnitrans on the use of the cost allocation model. The model will be developed using Microsoft Excel spreadsheet with a user-friendly interface and will highlight where staff could make adjustments to the data on an on-going basis as future financial conditions change.

Schedule

We propose a six month schedule from our receipt of a Notice To Proceed (NTP). The methodology and model will be developed between four and five months, with model adjustments and training conducted during the sixth month. The final report will also be delivered by the sixth month.

Budget

A total lump sum budget of \$38,750 is proposed for this project. Mr. Derek Wong of PMC will be the project leader and the primary contact. Ms. Sandra Bauer will provide administrative and technical support. We will invoice on a monthly percent-complete basis. A budget by task is shown below.

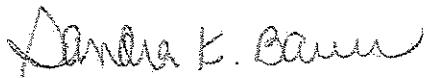
	Hours	Budget
	D. Wong	
Activity	\$125	
Task 1: Conduct Startup Meeting and Initiate Data Collection	10	\$1,250
Task 2: Collect and Review Relevant Documentation	47	\$5,875
Task 3: Prepare Cost Allocation Plan		
Task 3.1: Prepare Indirect Cost Plan	64	\$8,000
Task 3.2: Prepare Operational Cost Allocation Plan	80	\$10,000
Task 4: Test and Review Cost Allocation Methodology	30	\$3,750
Task 5: Prepare Draft and Final Methodology	45	\$5,625
Task 6: Provide Training On Use of Cost Allocation Model	22	\$2,750
SubTotal	298	\$37,250
Administrative and Technical Support (S. Bauer)	12	\$1,500
Total		\$38,750

Mr. Michael Bair
June 5, 2006

Please let me know if you need any additional information, or have questions regarding this submittal. I can be reached at (916) 442-2303. Once again, thank you for your interest.

Sincerely,

ARTHUR BAUER & ASSOCIATES, INC.

A handwritten signature in cursive script that reads "Sandra K. Bauer".

Sandra K. Bauer
President

cc: Derek Wong

- San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
■ San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies

Minute Action

AGENDA ITEM: 6

Date: June 21, 2006

Subject: Award of Construction Contract 06-055 for San Bernardino Valley Coordinated Traffic Signal System Program – Tier 1

Recommendation:* Authorize staff to proceed directly to Board for award of Construction Contract 06-055 for San Bernardino Valley Coordinated Traffic Signal System Program – Tier 1

Background: **This action is in anticipation of a new construction contract.** The San Bernardino Valley Coordinated Traffic Signal System Program – Tier 1 (Tier 1) is currently out to bid with bids scheduled to open the afternoon of June 29, 2006. This is the first of two separate signal coordination projects that will be advertised over the next month. Tier 1 generally entails the coordination of approximately 300 signals on arterials parallel to and connecting to the I-10 and SR-60 freeways in the valley region of San Bernardino County (refer to attached figure for signal locations). The work comprises the installation of traffic signal interconnect systems, connecting various traffic signals to existing fiber optic systems, and appurtenant work at various signal locations in the program. The engineer's construction cost estimate for Tier 1 is approximately \$1.1 million.

This project has experienced delays in advertising resulting from the time required for the federally mandated pre-award audit for the associated construction management contract and the transition to the race-neutral Disadvantaged Business Enterprise (DBE) program. Proceeding directly

*

Approved

Plans and Programs Policy Committee

Date: _____

Moved: Second:

In Favor: Opposed: Abstained:

Witnessed: _____

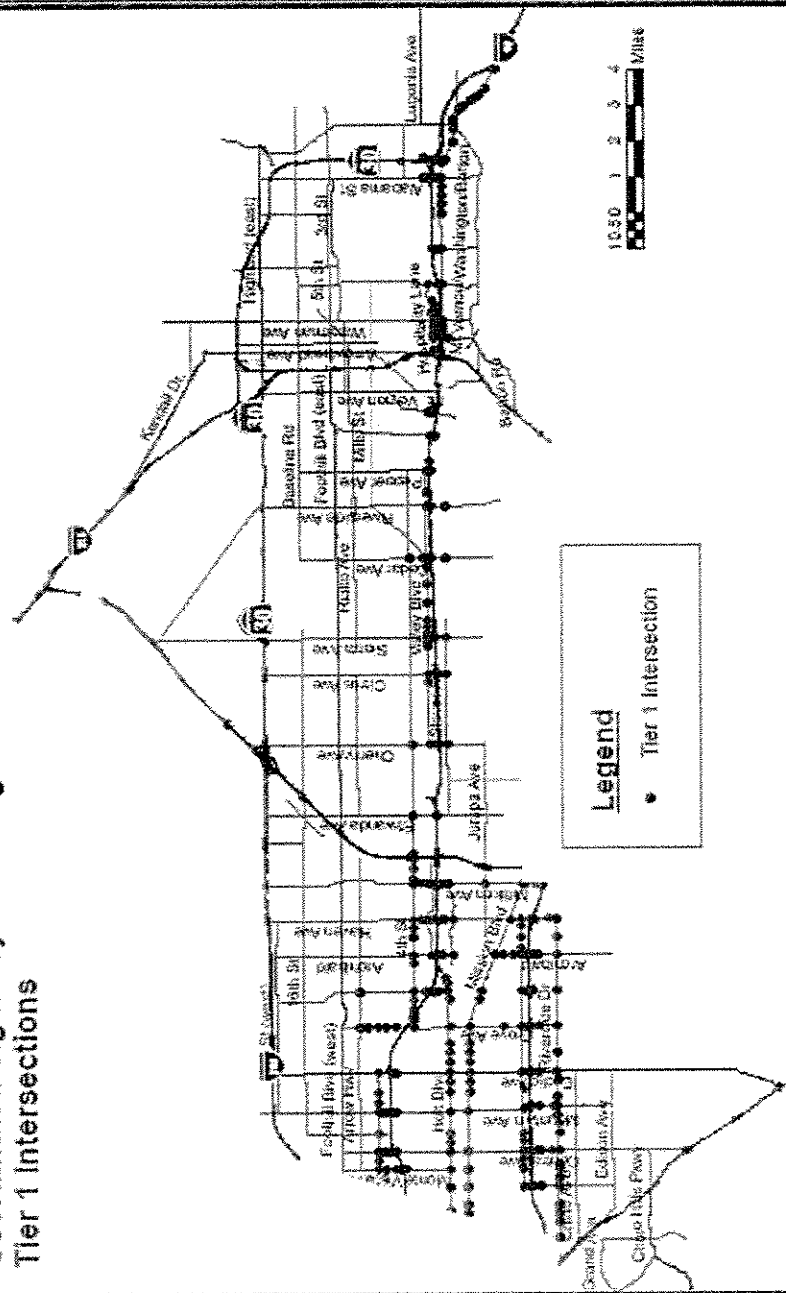
to the Board meeting following the respective bid opening will expedite our ability to issue a notice to proceed to the contractor to start construction activities and mobilize contract forces. State contracting law mandates that the lowest responsible and responsive bidder be awarded the contract. This takes most, if not all, of the discretion from the contract award process.

Financial Impact: This item has no impact on the FY 2005/06 Budget. TN 0670100.

Reviewed By: This item will be reviewed by the Plans and Programs Policy Committee on June 21, 2006.

Responsible Staff: Andrea Zureick, Senior Transportation Analyst
Ty Schuiling, Director of Freeway Construction

Figure 1
San Bernardino Valley
Coordinated Signal System Program
Tier 1 Intersections



JANUARY 2000

Governments
SANBAG
Working Together

Minute Action

AGENDA ITEM: 7

Date: June 21, 2006

Subject: Local Agency Project Advancement Agreement

Recommendation:* Approve Project Advancement Cooperative Agreement C07022 with the City of Chino Hills for the Widening of Peyton Drive from Grand Avenue to Chino Hills Parkway

Background: A strategy to advance SANBAG Nexus Study interchange, arterial, and grade separation projects to construction prior to the availability of Measure I 2010-2040 revenues was approved by the Board in December 2005 (Attachment 1). A model interagency agreement to implement the program was approved by the Board in April 2005.

The City of Chino Hills has approved the attached Cooperative Agreement for the Widening of Peyton Drive from Grand Avenue to Chino Hills Parkway and is requesting approval by the Authority. The agreement commits the Authority to reimbursement of up to \$8,202,776 in Measure I 2010-2040 revenues with the reimbursement schedule to be determined by the Measure I 2010-2040 Strategic Plan.

Financial Impact: The agreement commits the Authority to reimbursement of up to \$8,202,776 in Measure I 2010-2040 revenues with the reimbursement schedule to be determined by the Measure I 2010-2040 Strategic Plan.

*

Approved
Plans and Programs Policy Committee

Date: _____

Moved:

Second:

In Favor:

Opposed:

Abstained:

Witnessed: _____

ppc0606b-abz

Attachments: brd0512a-ty; C07022

0660110

Plans and Programs Agenda Item
June 21, 2006
Page 2 of 2

Reviewed By: This item will be reviewed by the Plans and Programs Policy Committee on June 21, 2006.

Responsible Staff: Ty Schuiling, Director of Planning and Programming

ppc0606b-abz
Attachments: brd0512a-ty; C07022
0660110

Minute Action

AGENDA ITEM: 6

Date: December 7, 2005

Subject: Project Advancement

Recommendation: 1) Approve project criteria and project advancement strategy as described below.
2) Direct staff to develop a model interagency agreement for reimbursement of eligible costs pursuant to a schedule to be defined as part of the Measure I 2010-2040 Strategic Plan for projects advanced by member agencies with local (non-SANBAG) funds.

Background: Strategies to advance SANBAG Nexus Study (in the rural areas, Measure I 2010-2040 Expenditure Plan) interchange, arterial, and grade separation projects to construction prior to the availability of Measure I 2010-2040 revenues were discussed by the Plans and Programs Policy Committee in September and October, 2005. Issues discussed included project prioritization, interjurisdictional equity, impact on access to funds for future projects, and the need to avoid impact to SANBAG's future bonding capacity and costs.

The committee first directed staff to prepare an inventory of eligible projects that member jurisdictions would advance with local funds if provision were made for reimbursement out of a portion of the Measure I 2010-2040 Expenditure Plan revenues as they become available.

Eligibility criteria are as follows:

1. Project must be a freeway interchange, major street, or railroad grade separation project included in SANBAG Nexus Study if in the urban Valley or Victor Valley areas, or have been included in the freeway interchange,

Approved Consent

Approved
Board of Directors

Date: December 7, 2005

Moved: Pomierski Second: Gilbreath

In Favor: 22 Opposed: 0 Abstained: 0

Witnessed: Anna Wilson

major street, or railroad grade separation project lists used to formulate the Measure I 2010-2040 Expenditure Plan if located in the non-urban areas of the county.

2. Project must be ready to go to construction on or before January 1, 2008.
3. Project must be fully funded through construction with local or other resources not provided by SANBAG.

Eight of the 25 member jurisdictions responded with project submittals. These included \$179 million in projects eligible for Measure I 2010-2040 Valley Arterial Program (including grade separation) funds, \$166 million in projects eligible for Measure I 2010-2040 Valley Interchange Program funds, and \$40 million in projects eligible for Measure I 2010-2040 Victor Valley Major Local Projects funds.

Of these total costs, the net reimbursable shares after development fair share contributions and federal earmarks are subtracted are:

- Valley Measure I Freeway Interchange Program: \$107M, which would require 18 years for repayment if 40% of revenues were dedicated to reimbursement
- Valley Measure I Major Street Program: \$96M, which would require 10 years for repayment if 40% of revenues were dedicated to reimbursement
- Victor Valley Measure I Major Local Projects Program: \$16.2M, which would require 7 years for repayment if 40% of revenues were dedicated to reimbursement

These calculations assume that reimbursement includes no interest. It was noted that inclusion of interest would (depending on the rate) substantially increase the proportion of the program Measure I funds dedicated to reimbursement, further extend the period of repayment, and would certainly affect the ability to fund other projects. The length of time required to reimburse project sponsors would be reduced by reducing the number and cost of projects, or by dedicating a larger share of revenues to reimbursement.

However, the potential impact of a reimbursement process of this magnitude and duration on the ability to "frontload" another program (as Metrolink was frontloaded in the current Measure I) is a major concern. Frontloading requires dedication of early revenues from one or more programs to another, with repayment to the donor program(s) in later years. Determination of the need or desirability of such frontloading for one or more programs is among the objectives of the Measure I 2010-2040 Strategic Plan, and it was recognized that a

decision to proceed with an advancement program of this magnitude with a pre-determined reimbursement schedule could foreclose Strategic Plan options otherwise available to the Board of Directors.

Consequently, the Committee directed staff to develop a revised inventory of projects that member jurisdictions would advance with local funds despite an understanding that the reimbursement rate and schedule would only be determined through the Measure I 2010-2040 Strategic Plan development process, thereby preserving a broader range of options for consideration by the Board of Directors. The inventory is Attachment A. A reduction in the list of candidate Valley Major Street projects is the only change from the previous inventory.

Project advancement strategy

Staff recommends approval of an advancement strategy for projects that meet the criteria listed above, and which local governments are willing to advance with local funds (funds not allocated by SANBAG) with the understanding that the timing of reimbursement of the eligible share of project cost will be determined as part of the Measure I 2010-2040 Strategic Plan.

Staff further recommends development of interagency agreements to be executed by SANBAG and project sponsors through which member agencies will agree to meeting the project eligibility criteria and SANBAG will commit to reimbursement of the eligible share of project cost at such time as is determined through the Measure I 2010-2040 strategic plan. Each such agreement would be subject to approval by the Board of Directors and the governing body of the sponsoring agency.

Financial Impact: This item may increase slightly the scope of the Measure I Strategic Plan, but may remain within the available budget for Fiscal Year 2005-2006. The long-term impact of the project advancement program is expected to be positive in that significant savings in both construction and right-of-way costs may occur through early delivery of these projects.

Reviewed By: This item was reviewed and unanimously recommended for approval by the Plans and Programs Policy Committee on November 16, 2005.

Responsible Staff: Ty Schuiling, Director of Planning and Programming

**COOPERATIVE AGREEMENT NO. C07022
BETWEEN**

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

AND

CITY OF CHINO HILLS

FOR

**PEYTON DRIVE WIDENING FROM GRAND AVENUE TO CHINO HILLS
PARKWAY**

THIS AGREEMENT is made and entered into this _____ day of _____ by and between the San Bernardino County Transportation Authority (hereinafter referred to as "SANBAG") and the City of Chino Hills (hereinafter referred to as "CITY").

WITNESSETH

WHEREAS, the SANBAG Nexus Study and the Measure I 2010-2040 Expenditure Plan identified freeway interchange, major street, and railroad grade separation projects eligible for partial funding from Measure I 2010-2040 revenues; and

WHEREAS, CITY wishes to begin construction of Peyton Drive widening from Grand Avenue to Chino Hills Parkway (hereinafter referred to as the "PROJECT") by January 1, 2008; and

WHEREAS, SANBAG has determined that this PROJECT is defined within the SANBAG Nexus Study within the urban areas of the county or the Measure I 2010-2040 Expenditure Plan within the non-urban areas of the county; and

WHEREAS, since revenue from Measure I 2010-2040 will not be available until 2010 or later, CITY desires to use its own local (non-SANBAG) funds to construct the PROJECT at this time; and

WHEREAS, SANBAG and CITY are entering into this Agreement that will allow CITY to use funds not contributed or allocated by SANBAG to implement the PROJECT immediately with the understanding that SANBAG will reimburse CITY for eligible PROJECT expenditures at a later date with Measure I 2010-2040 revenue and in accordance with the reimbursement schedule established in the Measure I 2010-2040 Strategic Plan.

NOW, THEREFORE, SANBAG and CITY agree to the following:

SECTION I

SANBAG AGREES:

1. To reimburse CITY for those eligible PROJECT expenses that are incurred by CITY for the PROJECT-specific work activities, as set forth in Attachment A to this Agreement. Said reimbursement amount shall not exceed the percentage of actual cost as set forth in the SANBAG Nexus Study, up to \$8,202,776. The SANBAG Nexus Study states an actual cost of \$15,167,000. In the event that the project cost is lower, the reimbursement percentage shall apply. In this event, the reimbursement shall be calculated as follows:
 - a. Subtract \$5,628,888 in Federal Highway Administration High Priority Grant funds from the actual cost, as documented following the procedures outlined in SECTION II below
 - b. Multiply the result by the reimbursement percentage (86%, from the SANBAG Development Mitigation Nexus Study, 2005)

In the event that all or a portion of the Federal Highway Administration grant funds identified above are not available for application to this project, the reimbursement amount shall be recalculated to reflect the change in federal transportation funding. In the event that additional Federal Highway Administration grant funds are applied to this project (in addition to the grant listed above) the reimbursement amount shall be recalculated to reflect the change in federal transportation funding.

These calculations are based on the principles contained in Chapter 4, Section 4B of the 2005 Congestion Management Program prepared by the San Bernardino County Congestion Management Agency (CMA), adopted by the CMA in November, 2005. The two pertinent principles are:

- Federal or state appropriations from transportation sources for specific projects will reduce the project costs, not just reduce the required developer mitigation. The percentage share of the remaining project costs allocated to development and other sources will remain the same.
- Funds generated by local jurisdictions from non-transportation sources (federal, state or other) will be eligible for credit against local fair-share development contributions. In addition, SANBAG may permit the use of transportation dollars (federal or state appropriations) as a credit against local fair-share development contributions on an exception basis, when the local jurisdiction shows that such transportation dollars are net "new" dollars to the regional transportation system.

2. To reimburse CITY, subject to Article 1 of this Section I, in accordance with the reimbursement terms set forth in the Measure I 2010-2040 Strategic Plan and after CITY submits to SANBAG an original and two copies of the signed invoices in the proper form covering those actual allowable PROJECT expenditures that were incurred by CITY.
3. When conducting an audit of the costs claimed under the provisions of this Agreement, to rely to the maximum extent possible on any prior audit of CITY performed pursuant to the provisions of state and federal laws. In the absence of such an audit, work of other auditors will be relied upon to the extent that work is acceptable to SANBAG when planning and conducting additional audits.

SECTION II

CITY AGREES:

1. Subject to Article 1 of Section I, that only eligible PROJECT-specific work activities, as set forth in Attachment A to this Agreement, which are for transportation purposes that conform to the SANBAG Nexus Study and/or the Measure I 2010-2040 Expenditure Plan, will be eligible for future Measure I 2010-2040 reimbursement. CITY agrees that for work it will later claim reimbursement hereunder, it will only undertake eligible PROJECT-specific work activities.
2. To abide by all State and, if applicable, federal policies and procedures pertaining to the PROJECT.
3. After completion of the PROJECT, to prepare and submit to SANBAG an original and two copies of signed invoices for subsequent reimbursement of those eligible PROJECT expenses. CITY further agrees and understands that SANBAG will not reimburse CITY for a) any PROJECT expenditures that are not described in the PROJECT-specific work activities and/or b) any PROJECT expenditures that occur prior to the date of execution of this Agreement.
4. If Measure I 2010-2040 reimbursement funds are received by CITY, to repay to SANBAG any costs that are determined by subsequent audit to be unallowable within thirty (30) days of CITY receiving notice of audit findings. Should CITY fail to reimburse moneys due SANBAG within (30) days of demand, or within such other period as may be agreed between both parties hereto, SANBAG reserves the right to withhold future payments due CITY from any source under SANBAG's control.
5. To maintain all source documents, books and records connected with its performance under this Agreement for a minimum of five (5) years from the

date of the Final Report of Expenditures submittal to SANBAG or until audit resolution is achieved and to make all such supporting information available for inspection and audit by representatives of SANBAG. Copies will be made and furnished by CITY upon request, but in no case less than five (5) years from the date of final reimbursement payment, if said reimbursement occurs under this Agreement.

6. To establish and maintain an accounting system conforming to Generally Accepted Accounting Principles (GAAP) to support CITY request for reimbursement, payment vouchers, or invoices which segregate and accumulate costs of PROJECT work elements and produce monthly reports which clearly identify reimbursable costs, matching fund costs, and other allowable expenditures by CITY.
7. To prepare a Final Report of Expenditures, including a final invoice reporting the actual eligible PROJECT costs expended for those activities described in the work activities, and to submit that Report and invoice no later than 60 days following the completion of those expenditures. The Final Report of Expenditures, three copies of which report shall be submitted to SANBAG, must state that these PROJECT funds were used in conformance this Agreement and for those PROJECT- specific work activities described.
8. To have a PROJECT-specific audit completed by SANBAG upon completion of the PROJECT. The audit must state that all funds expended on the PROJECT were used in conformance with this Agreement.
9. CITY agrees that PROJECT reimbursement schedule will be determined as part of the Measure I 2010-2040 Strategic Plan.
10. CITY agrees to post signs on ends of PROJECT noting that PROJECT is funded with Measure I funds. Signs shall bear the logos of San Bernardino Associated Governments and the City of Chino Hills.

SECTION III

IT IS MUTUALLY AGREED:

1. SANBAG's financial responsibility shall not exceed \$8,202,776 (as adjusted based on the availability of federal transportation funding as described in SECTION I) or the amount based on actual cost as derived in SECTION I, whichever is less.
2. Eligible PROJECT reimbursements shall include only those costs incurred by CITY for PROJECT-specific work activities that are described in this Agreement and shall not include escalation, interest, or other fees.

3. SANBAG shall have no responsibility to reimburse any otherwise allowable PROJECT expenditures until a date to be determined by the Measure I 2010-2040 Strategic Plan, nor will SANBAG reimburse CITY those said expenditures unless and until such time as a) sufficient Measure I 2010-2040 revenue exists to fund those eligible PROJECT reimbursements and b) CITY has satisfied any and all other necessary PROJECT requirements including the submission of all required invoices and Reports.
4. Once reimbursement is initiated in accordance with a schedule determined through the Measure I 2010-2040 Strategic Plan, total reimbursements to all eligible advanced projects shall not exceed 40 percent of the revenues allocated to the program categories from which the projects will be funded. Reimbursement shall be provided in proportion to the share of total reimbursable cost represented by each project. Reimbursement in full for eligible costs shall be completed no later than receipt of final revenues generated by Measure I 2010-2040.
5. In the event CITY fails to initiate construction by January 1, 2008, fails complete the PROJECT commenced under this Agreement, fails to perform any of the obligations created by this Agreement, or fails to comply with applicable state and, if applicable, federal laws and regulations, SANBAG reserves the right to terminate this Agreement and any subsequent funding for the PROJECT or a portion thereof upon written notice to CITY. CITY may only be reimbursed for those eligible PROJECT expenditures that occur prior to the date of termination when successfully completed as provided for pursuant to this Agreement. An audit may be performed as provided in Section II, Article (8) of this Agreement.
6. Neither SANBAG nor any officer or employee thereof is responsible for any injury, damage or liability occurring or arising by reason of anything done or omitted to be done by CITY under or in connection with any work, authority or jurisdiction delegated to CITY under this Agreement. It is understood and agreed that, pursuant to Government Code Section 895.4, CITY shall fully defend, indemnify and save harmless SANBAG, its officers and employees from all claims, suits or actions of every name, kind and description brought for or on account of injury (as defined by Government Code Section 810.8) occurring by reason of anything done or omitted to be done by CITY under or in connection with any work, authority or jurisdiction delegated to CITY under this Agreement.
7. This Agreement will be considered terminated upon reimbursement of eligible costs by SANBAG.

**San Bernardino County
Transportation Authority**

By: _____
Dennis Hansberger
President, SANBAG Board of
Directors

Date: _____

APPROVED AS TO FORM AND
PROCEDURE:

By: _____
Jean-Rene Basle
SANBAG County Counsel

Date: _____

City of Chino Hills

By: _____
Ed M. Graham
Mayor

Date: _____

APPROVED AS TO FORM AND
PROCEDURE:

By: _____
Brad Wohlenberg
Assistant City Attorney

Date: _____

Project Specific Work Activities

The project specific work activities for Peyton Drive are as follows.

- Widening of Peyton Drive to six lanes, with a raised landscaped median and shoulders, from Grand Avenue to Eucalyptus Avenue.
- Widening of Peyton Drive to four lanes, with raised landscaped median and shoulders, from Eucalyptus Avenue to Chino Hills Parkway.
- English Creek improvements at Peyton Drive consisting of the installation of a box culvert and stream improvements to mitigate the flooding of Peyton Drive.
- Storm drain system to drain Peyton Drive.
- Intersection improvements, including traffic signal installation or modification, at Grand Avenue, Main Street, English Road, Bull Dog Way, Eucalyptus Avenue, Morningfield Drive and Chino Hills Parkway (SR-142).
- Associated pedestrian and multi-purpose trail improvements.
- Associated landscaping and irrigation.
- Associated environmental mitigation.
- Acquisition of right-of-way required for the improvements.
- Relocation of utilities.
- Support costs for design, right-of-way acquisition and construction management.

COST ESTIMATE

Item	Anticipated Cost
Design	\$ 1,000,000.00
Construction	\$ 10,717,000.00
Utility Relocation/Undergrounding	\$ 1,500,000.00
Construction Management	\$ 950,000.00
Right-of-way Acquisition	\$ 2,000,000.00
Total	\$ 15,167,000.00

Minute Action

AGENDA ITEM: 8

Date: June 21, 2006

Subject: Development Mitigation Program Cost Escalation Factor

Recommendation:* Adopt the rolling 5-year average of the Caltrans Construction Items Index (12.9% for calendar year 2004-2005) as the cost escalation factor for the San Bernardino County Development Mitigation Program

Background: One of the requirements of the Development Mitigation Program approved by the San Bernardino County Congestion Management Agency (CMA) in November 2005 is an annual update of Nexus Study project costs and fair share development contributions to these projects. This is accomplished by CMA adoption of an escalation factor to be applied uniformly by each affected jurisdiction so that development contributions keep pace with cost increases and so that no jurisdiction's development mitigation program is advantaged or disadvantaged by the choice of escalation factor. The Comprehensive Transportation Plan Technical Advisory Committee (CTP TAC) suggested CMA approval of these factors by the end of each fiscal year so that they are available to jurisdictions for all or most of the subsequent fiscal year.

At the May 2006 Plans and Programs Committee (PPC) meeting, staff presented the Caltrans Construction Items Index to be used as the escalation factor for the Development Mitigation Program. This recommendation was made after an

*

Approved
Plans and Programs Policy Committee

Date:

Moved:

Second:

In Favor:

Opposed:

Abstained:

Witnessed: _____

analysis of six escalation indices. The six escalation indices that were considered in making the recommendation are included as Attachment 1 to this agenda item. Staff recommended use of the Caltrans California Construction Items Index as the escalation factor for the Development Mitigation Program because it is the only escalation index that is specific to the unique characteristics of the California transportation construction industry. The most current annual rate of cost escalation in the Index is 24.10%, representing escalation from the end of calendar year 2004 to the end of calendar year 2005.

At the May 2006 PPC meeting this item was tabled and asked to be brought back before the committee again in June for two reasons. First, additional discussion of this item was seen to be needed from an expanded group of CTP TAC representatives. Second, the additional time was seen to provide opportunity for local jurisdictions to compile and present either contradictory or corroboratory evidence to be considered when determining the appropriate escalation factor to be used for the Development Mitigation Program. Following the May 2006 PPC meeting, staff sent out a letter to public works directors and planning directors from each of the member jurisdictions notifying them of the June CTP TAC meeting at which this item would be further discussed. The letter asked each of the representatives to bring with them additional information to be considered when determining an escalation factor to be used in the Development Mitigation Program. Included with the letter was all of the supplemental material presented at the May 2006 PPC Meeting. This letter was also sent electronically to the entire CTP TAC mailing list.

The issue of which cost escalation index to be used was again discussed at the June 12 CTP TAC meeting. Both High Desert and San Bernardino Valley jurisdictions were well-represented, and the Building Industry Association (BIA) and the National Association of Industrial and Office Properties (NAIOP) had representatives present as well. The only jurisdiction to bring additional information to be considered was the City of Victorville. Their information was based on an independent analysis of their local development mitigation program that occurred in March 2006. In Victorville's staff recommendation, they advocated using the Caltrans Construction Items Index for interchanges and grade separation projects and using a separate analysis of items typically used for the construction of arterials roadways for their arterial projects. Both components of Victorville's independent analysis indicate that 24% is the appropriate escalation factor to use. This corroborates the material that was provided to SANBAG in May by the City of Ontario contained in this agenda item as Attachment 2.

After additional review of the escalation factor and an expanded opportunity for technical input into the choice of the escalation factor, staff again recommends using the Caltrans Construction Items Index as the basis for escalating the costs and amounts of fair share development contribution contained within the Nexus Study. Recommendation of the Caltrans Construction Items Index, to be used as the escalation factor for the Development Mitigation Program, is based on the best technical data. However, the choice of an index on which to base cost escalation is only one component of a more complex policy decision. The second component of the policy decision is determining how to implement a cost escalation of this magnitude.

Staff recommends using a rolling 5-year average of the index as the basis for escalating the project costs and levels of fair share development contribution in the Nexus Study. Use of a 5-year rolling average would provide local jurisdictions insulation from the volatility of an annualized escalation factor. In addition, use of a 5-year average ensures that spikes in cost escalation are smoothed out, allowing escalation to be absorbed over several years. The trade-off, however, is that using a 5-year rolling average also dampens the downward trends in cost escalation as well. Consequently, in years with minimal increases or decreases in construction costs, jurisdictions would still be required to implement the 5-year rolling average as a cost escalation factor. For example, the rolling average might require 8% escalation, while actual cost increases for a calendar year may be only 1 or 2%. The 5-year rolling average being recommended for adoption as the escalation factor for the Development Mitigation Program for calendar year 2004-2005 is 12.9%. Each year, as new cost escalation information becomes available from Caltrans, the 5-year rolling average will be updated.

This escalation factor would be applied to all regional arterial, railroad grade separation, and interchange projects listed in the Nexus Study, and provide the basis for adjustments to the regional portion of fees listed in local development mitigation programs. The choice of an escalation factor for local projects not included in the Nexus Study is outside SANBAG's purview. The Development Mitigation Program requires that jurisdictions adopt this escalation factor by resolution to maintain conformance with the program (ref. Appendix J of the Congestion Management Program).

Development contributions need to account for the escalation in costs if funding is to have any chance of keeping pace with the need for transportation improvements. Many jurisdictions, however, are currently in the process of

preparing and adopting compliant development mitigation programs, some for the first time. Consequently, staff recommends that jurisdictions be granted flexibility in meeting the requirements of the Development Mitigation Programs. Staff recommends allowing jurisdictions to pursue one of three options. The options are as follows:

1. Adopt the escalation factor into their local development mitigation programs and provide a copy of the resolution to SANBAG by November 2006.
2. In 2007, adopt both this year's and next year's escalation factors into their local development mitigation programs and provide a copy of the resolution to SANBAG by November 2007. Local jurisdictions choosing to pursue this option would need to provide a letter to SANBAG noting this decision by November 2006.
3. If a jurisdiction has not yet adopted their local development mitigation program, use the revised Tables 7 and 8 (see Attachment 3), which includes the proposed escalation factor, as their revised development mitigation program and provide a copy of the development mitigation program to SANBAG for determination of compliance, consistent with Appendix J of the Congestion Management Program, by November 2006.

Finally, jurisdictions that have revised their costs upward from those contained in the current Board adopted Nexus Study in preparation of their local development mitigation program would be credited with that amount of cost escalation. For local jurisdictions with revised project costs contained in their development mitigation program that meet or exceed the amounts contained in the revised Tables 7 and 8, contained in Attachment 3, no additional action would be required by SANBAG. Local jurisdictions that have adjusted their costs in an amount less than the amounts contained in Attachment 3 would be required to adopt the balance of the escalation factor by ordinance, consistent with the options provided in this agenda item.

Financial Impact: There is no financial impact to the CMA for this item. All staff activities are consistent with the adopted Budget.

Reviewed By: This item will be reviewed by the Plans and Programs Committee on June 21, 2006

Plans and Programs Agenda Item
June 21, 2006
Page 5 of 5

Responsible Staff: Ryan Graham, Transportation Planning Specialist
Steve Smith, Principal Transportation Analyst

PPC0606A-RPG.doc
Attachments: PPC0605A1-RPG, PPC0605A2-RPG
06020305

Year	Caltrans		Caltrans		Caltrans		ARTBA		ENR		CPI		FHWA	
	Bridge	Construction Index	%	Calif.	Construction items	%	Highways & Streets	%		%		%	Composite Index	%
1977	100				53.7				2576				59.8	
1978	114		14.00%		62.1	15.64%			2776	7.76%			70.7	18.23%
1979	154		35.09%		80.1	28.99%			3003	8.18%			85.5	20.83%
1980	159		3.25%		82.1	2.50%			3237	7.79%			97.2	13.68%
1981	157		-1.26%		90.6	10.35%			3535	9.21%			94.2	-3.09%
1982	149		-5.10%		81.3	-10.26%			3825	8.20%			88.5	-6.05%
1983	163		9.40%		81.9	0.74%			4066	6.30%			87.6	-1.02%
1984	165		1.23%		93.3	13.92%			4146	1.97%			92.6	5.71%
1985	167		1.21%		92.7	-0.64%			4195	1.18%			102.0	10.15%
1986	178		6.59%		95.0	2.48%			4295	2.38%			101.1	-0.88%
1987	190		6.74%		100.0	5.26%	100.8		4406	2.58%	113.60		100.0	-1.09%
1988	197		3.68%		104.4	4.40%	103.4	2.58%	4519	2.56%	118.30	4.14%	106.6	6.60%
1989	206		4.57%		111.3	6.61%	107.0	3.48%	4615	2.12%	124.00	4.82%	107.7	1.03%
1990	214		3.88%		113.5	1.98%	110.7	3.46%	4732	2.54%	130.70	5.40%	108.5	0.74%
1991	209		-2.34%		108.2	-4.67%	110.6	-0.09%	4835	2.18%	136.20	4.21%	107.5	-0.92%
1992	187		-10.53%		106.8	-1.29%	110.0	-0.54%	4985	3.10%	140.30	3.01%	105.1	-2.23%
1993	188		0.53%		113.1	5.90%	111.7	1.55%	5210	4.51%	144.50	2.99%	108.3	3.04%
1994	228		21.28%		119.0	5.22%	114.3	2.33%	5408	3.80%	148.20	2.56%	115.1	6.28%
1995	204		-10.59%		115.0	-3.36%	118.4	3.59%	5471	1.16%	152.40	2.83%	121.9	5.91%
1996	199		-2.45%		119.2	3.65%	122.1	3.12%	5620	2.72%	156.90	2.95%	120.2	-1.39%
1997	196		-1.51%		124.8	4.70%	124.6	2.05%	5826	3.67%	160.50	2.29%	130.6	8.65%
1998	200		2.04%		128.6	3.04%	123.5	-0.88%	5920	1.61%	163.00	1.56%	126.9	-2.83%
1999	214		7.00%		139.2	8.24%	126.6	2.51%	6059	2.35%	166.60	2.21%	136.5	7.57%
2000	247		15.42%		146.2	5.03%	136.5	7.82%	6221	2.67%	172.20	3.36%	145.6	6.67%
2001	269		8.91%		154.1	5.40%	137.0	0.37%	6343	1.96%	177.10	2.85%	144.8	-0.55%
2002	260		-3.35%		142.2	-7.72%	133.7	-2.41%	6538	3.07%	179.90	1.58%	147.9	2.14%
2003	266		2.31%		148.6	4.50%	136.6	2.17%	6694	2.39%	184.00	2.28%	149.8	1.28%
2004	362		36.09%		216.2	45.49%	148.2	8.49%	7115	6.29%	188.90	2.66%	154.4	3.07%
2005	460		27.07%		268.3	24.10%	166.8	12.55%	7446	4.65%	195.30	3.39%	191.7	24.16%
Total change in 29 years										Total change in 29 years	Total change in 29 years			
Avg yearly change										Avg yearly change	Avg yearly change			
											220.57%			
											7.61%			
Total change in 19 years										Total change in 19 years	Total change in 19 years			
Avg yearly change										Avg yearly change	Avg yearly change			
											71.92%			
											3.79%			
											91.70%			
											4.83%			

Summary of Ontario Project Cost Escalation

TABULATION OF BIDS

PROJECT TITLE : FRANCIS ST, HOLT/VINEYARD INT. PAVEMENT REHAB.

BID OPENING ON : 05/08/2006

CONTRACT NO: 0506-03

CIP PROJECT NO: ST0508 - Francis St Rehab.

ST0510 - Holt/Vineyard Int. Rehab.

ITEM NO.	DESCRIPTION			CURRENT BID PRICES*		2005 PROJECT COST*		2004 PROJECT COST*	
		QUANTITY	UNIT	AVE UNIT	AVE TOTAL	2005 UNIT	2005 TOTAL	2004 UNIT	2004 TOTAL
1	Traffic Control & Safety & Project Information Signs	1	L.S.	\$18,472.14	\$18,472.14	\$14,825.00	\$14,825.00	\$14,875.00	\$14,875.00
2	Clearing, Grubbing, Restorations, Earthwork	1	L.S.	\$23,208.58	\$23,208.58	\$23,208.58	\$23,208.58	\$23,208.58	\$23,208.58
3	Slot Grind A.C. Pavement 2" Depth	1,326	S.Y.	\$2.86	\$3,527.16	\$2.08	\$2,758.08	\$1.93	\$2,559.18
4	Header Grind A.C. Pavement	3,248	S.Y.	\$1.82	\$5,911.36	\$2.08	\$6,755.84	\$1.93	\$6,268.64
5	Remove Existing PCC Cross-Gutter, Spandrels	2,395	S.F.	\$3.35	\$8,023.25	\$3.80	\$9,101.00	\$2.26	\$5,412.70
6	Remove Existing PCC Sidewalk/Approach/Flatwork	4,487	S.F.	\$1.83	\$8,211.21	\$1.90	\$8,525.30	\$2.26	\$10,140.62
7	Remove Existing PCC Curb/Curb & Gutter	79	L.F.	\$29.40	\$2,322.60	\$7.83	\$618.57	\$7.47	\$590.13
8	Remove Existing A.C. Pavement	154	S.Y.	\$19.20	\$2,956.80	\$7.34	\$1,130.36	\$9.69	\$1,492.26
9	Construct AC Leveling Course	9,462	S.Y.	\$4.29	\$40,591.98	\$3.84	\$36,334.08	\$3.18	\$30,089.16
10	Construct 6" A.C. Pavement Base Course	141	TON	\$85.20	\$12,013.20	\$72.71	\$10,252.11	\$45.29	\$6,365.89
11	Construct ARHM Overlay 2" Thick	1,573	TON	\$82.80	\$130,244.40	\$76.42	\$120,208.66	\$56.01	\$88,103.73
12	Construct PCC Cross-Gutter, Spandrels	2,395	S.F.	\$9.34	\$22,369.30	\$9.20	\$22,034.00	\$7.50	\$17,962.50
13	Construct PCC Drive Approach	1,516	S.F.	\$6.26	\$9,490.16	\$7.40	\$11,218.40	\$5.61	\$8,504.76
14	Construct PCC Sidewalk	4,890	S.F.	\$4.42	\$21,613.80	\$6.21	\$30,366.90	\$4.14	\$20,244.60
15	Construct PCC Access Ramp	1,247	S.F.	\$15.73	\$19,615.31	\$13.78	\$17,183.66	\$6.35	\$7,918.45
16	Construct PCC Type B Curb & 24" Gutter	174	L.F.	\$35.40	\$6,159.80	\$30.80	\$5,359.20	\$21.54	\$3,747.66
17	Construct PCC Type A Curb	315	L.F.	\$25.80	\$8,064.00	\$21.50	\$6,772.50	\$17.08	\$5,380.20
18	Construct 24" PCC Gutter	70	L.F.	\$25.20	\$1,764.00	\$21.50	\$1,505.00	\$17.08	\$1,195.60
19	Construct 6" A.C. Dike	130	L.F.	\$22.05	\$2,866.50	\$5.90	\$767.00	\$5.90	\$767.00
20	Construct 4" A.C. Sidewalk	605	S.F.	\$6.75	\$4,083.75	\$2.50	\$1,512.50	\$2.50	\$1,512.50
21	Adjust Manhole Ring & Cover to Grade	7	EA.	\$346.00	\$2,422.00	\$355.06	\$2,485.42	\$282.97	\$1,980.79
22	Adjust Water Valve Cover to Grade	22	EA.	\$100.00	\$2,200.00	\$100.73	\$2,216.06	\$111.87	\$2,461.14
23	Construct Concrete Block Slough Wall	90	L.F.	\$116.80	\$10,494.00	\$100.00	\$9,000.00	\$100.00	\$9,000.00
24	Relocate (1) Water Service	1	EA.	\$3,740.00	\$3,740.00	\$927.97	\$927.97	\$927.97	\$927.97
25	Construct Traffic Loops	6	EA.	\$225.00	\$1,350.00	\$196.95	\$1,181.70	\$211.35	\$1,268.10
26	Install Traffic Striping, Markings, & Raised Markers	1	L.S.	\$13,540.00	\$13,540.00	\$13,540.00	\$13,540.00	\$13,540.00	\$13,540.00
27	Traffic Control & Safety	1	L.S.	\$9,575.80	\$9,575.80	\$2,310.00	\$2,310.00	\$2,520.00	\$2,520.00
28	Slot Grind A.C. Pavement (0.15' Depth, 0.17' Depth)	3,022	S.Y.	\$2.49	\$7,524.78	\$2.08	\$6,285.76	\$1.93	\$5,832.46
29	Construct A.C. Level Course	1,089	S.Y.	\$5.33	\$5,804.37	\$3.84	\$4,181.76	\$3.18	\$3,463.02
30	Construct ARHM Overlay (0.15' Depth, 0.17' Depth)	310	TON	\$95.50	\$29,805.00	\$76.42	\$23,690.20	\$56.01	\$17,363.10
31	Reconstruct Portion of PCC Access Ramp	96	S.F.	\$26.60	\$2,553.60	\$13.78	\$1,322.88	\$10.00	\$960.00
32	Install Truncated Dome Panel 3' Wide	4	EA.	\$981.40	\$3,925.60	\$981.40	\$3,925.60	\$981.40	\$3,925.60
33	Detail Grind Existing PCC Curb Face to 0" Lip at Fl	3	EA.	\$293.60	\$880.80	\$293.60	\$880.80	\$293.60	\$880.80
34	Adjust Manhole Ring & Cover to Grade	6	EA.	\$442.00	\$2,652.00	\$355.06	\$2,130.36	\$282.97	\$1,697.82
35	Adjust Water Valve Cover to Grade	5	EA.	\$112.80	\$563.00	\$100.73	\$503.65	\$111.87	\$559.35
36	Construct Traffic Loops	25	EA.	\$205.00	\$5,125.00	\$196.95	\$4,923.75	\$211.35	\$5,283.75
37	Traffic Striping	1	L.S.	\$5,920.00	\$5,920.00	\$5,920.00	\$5,920.00	\$5,920.00	\$5,920.00
TOTAL					\$459,385.05		\$415,862.65		\$333,943.36

* Average bid price of all bids received

2004-2006

2005-2006 (YTD)

2004-2005

37.56%

10.47%

24.53%

ATTACHMENT 3

Nexus Study Table 7 with 12.9% Cost Escalation Factor Applied

Jurisdiction	Ratio of Trip Growth to 2030 Trips	Total Art. Cost (\$Mill)	Devel. Share Of Total Art. Cost (\$Mill)	Devel. Share Of Interchge Cost (\$Mill)	Devel. Share Of RR Grade Sep. Cost (\$Mill)	Devel. Share of Total Cost (\$Mill)
Adelanto	81%	\$100.96	\$83.93	\$7.77	\$0.00	\$91.70
Apple Valley	41%	\$158.50	\$66.62	\$25.96	\$0.00	\$92.58
Chino	51%	\$103.74	\$54.03	\$24.32	\$0.00	\$78.35
Chino Hills	14%	\$23.45	\$3.30	\$0.00	\$0.00	\$3.30
Colton	44%	\$41.19	\$18.39	\$13.90	\$9.64	\$41.92
Fontana	33%	\$206.54	\$69.94	\$48.61	\$2.69	\$121.24
Grand Terrace	40%	\$21.33	\$8.73	\$0.00	\$3.67	\$12.40
Hesperia	59%	\$161.05	\$97.27	\$49.92	\$7.23	\$154.42
Highland	46%	\$108.59	\$51.66	\$16.03	\$0.00	\$67.69
Loma Linda	39%	\$61.43	\$24.45	\$26.92	\$3.22	\$54.59
Montclair	19%	\$6.80	\$1.32	\$4.65	\$1.60	\$7.58
Ontario	44%	\$203.49	\$92.58	\$58.10	\$20.48	\$171.15
Rancho Cucamonga	29%	\$67.79	\$19.94	\$22.35	\$2.31	\$44.61
Redlands	23%	\$65.73	\$15.57	\$9.62	\$0.16	\$25.35
Rialto	40%	\$76.67	\$31.80	\$14.88	\$0.00	\$46.68
San Bernardino	29%	\$106.91	\$31.78	\$52.71	\$8.19	\$92.68
Upland	39%	\$22.83	\$9.22	\$2.26	\$0.00	\$11.48
Victorville	49%	\$93.63	\$47.06	\$51.70	\$0.00	\$98.75
Yucaipa	31%	\$99.68	\$31.57	\$18.66	\$0.00	\$50.23

Nexus Study Table 8, with 12.9% Cost Escalation Factor Applied

JURISDICTION	Ratio of Trip Growth to 2030 Trips	Total Art. Cost (\$Mill)	Devel. Share Of Total Art. Cost (\$Mill)	Devel. Share Of Interchg Cost (\$Mill)	Devel. Share Of RR Grade Sep. Cost (\$Mill)	Devel. Share of Total Cost (\$Mill)
Adelanto Sphere	63%	\$2.18	\$1.40	\$0.00	\$0.00	\$1.40
Apple Valley Sphere	40%	\$15.55	\$6.42	\$9.39	\$0.00	\$15.82
Chino Sphere	37%	\$24.16	\$9.08	\$1.37	\$0.00	\$10.44
Colton Sphere	37%	\$7.37	\$2.81	\$0.23	\$0.00	\$3.04
Fontana Sphere	37%	\$69.25	\$26.31	\$33.69	\$0.00	\$60.00
Hesperia Sphere	42%	\$21.59	\$9.19	\$0.85	\$0.00	\$10.04
Loma Linda Sphere	72%	\$0.79	\$0.59	\$5.27	\$0.00	\$5.86
Montclair Sphere	37%	\$14.43	\$5.41	\$2.56	\$0.00	\$7.97
Redlands Sphere	36%	\$20.77	\$7.56	\$7.43	\$0.00	\$14.99
Rialto Sphere	38%	\$34.58	\$13.63	\$12.81	\$0.00	\$26.44
San Bernardino Sphere	23%	\$11.32	\$2.69	\$4.80	\$0.00	\$7.49
Upland Sphere	39%	\$14.23	\$5.65	\$1.32	\$0.00	\$6.97
Victorville Sphere	18%	\$26.81	\$4.88	\$0.45	\$0.00	\$5.33
Yucaipa Sphere	40%	\$1.58	\$0.64	\$0.00	\$0.00	\$0.64
SBCo Non-Sphere	62%	\$16.52	\$10.52	\$0.00	\$4.19	\$14.72
SBCo Donut Hole	62%	\$20.43	\$12.98	\$12.55	\$0.00	\$25.54

Minute Action

AGENDA ITEM: 9

Date: June 21, 2006

Subject: Program to Address Critical Habitat Issues (Indirect Impacts) Associated with Major Measure I Expenditure Plan Projects

- Recommendation:***
1. Execute a purchase order with the County of San Bernardino - County Museum to provide biological mapping and analysis in support of the SANBAG habitat initiative
 2. Amend Fiscal Year 2006/2007 budget, adding \$138,154 to Task Number 11207000, Regional Growth Forecast Development

Background: In June 2005, the Board directed staff to coordinate academic, institutional, and stakeholder participation in development of a strategy to minimize transportation project costs and delays associated with proximity to critical habitat. Based on this direction, SANBAG staff has initiated meetings with interested parties from the academic community, institutions and data repositories such as the San Bernardino County Museum, and other interests in development of a strategy, separate from the Measure I Strategic Plan, to address this issue and to ensure that the Measure I 2010-2040 transportation program is not the unintended principal source of funding to mitigate the impacts of land development on endangered species habitat.

An update on the habitat initiative was provided to the Plans and Programs Committee at the May 2006 meeting. Reference was provided in the May agenda item to a potential effort by the San Bernardino County Museum to collect and

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Approved
Plans and Programs Policy Committee

Date: _____

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Second:

In Favor:

Opposed:

Abstained:

Witnessed: _____

assemble data in support of biological mapping needs. Currently, there is no comprehensive countywide mapping of biological resources that can be used as the basis of land use and transportation planning by local jurisdictions and SANBAG. This results in a more fragmented approach to coordinating land use and transportation facility location decisions, a process that is becoming increasingly complex.

The Museum has presented a draft proposal to the habitat working group for a three-year program of biological data collection, analysis, and mapping. The purpose of this effort would be to assemble and organize the available species and habitat data, analyze previously collected but unanalyzed field samples, fill in gaps in species data, and bring the data together in a series of GIS layers that can be used for local and regional land use, habitat conservation, and transportation planning. Currently, local jurisdictions and transportation agencies generally proceed with habitat planning and mitigation on a project-by-project basis. The availability of a more comprehensive, consistent, science-based dataset will allow for more optimum decisions on lands to be conserved with the available resources and better coordination with land use and transportation decisions.

This agenda item recommends that funding be provided for one year of the County Museum's three-year proposal. Near the end of the first year, SANBAG staff and the other members of the habitat working group will make an assessment of the extent to which the effort is accomplishing the intended goals and determine whether funding should be provided for a second year. It is the expectation that the first year's work will be designed to accomplish specific milestones, and these will be established with the Museum and the working group at the initiation of the effort. The request for funds is \$138,584, to be added to SANBAG's FY 2006-2007 budget. Because the Museum is a County of San Bernardino department, a purchase order will be executed between SANBAG and the County for the payment of funds based on invoices received from the Museum demonstrating work accomplished on the project. The Museum has unique knowledge and capabilities with regard to species and habitat data and issues in San Bernardino County, and SANBAG staff believes they offer a cost-effective approach to better documenting information important to both transportation and land use decisions.

As stated in the May agenda item, discussion of strategy is still at a very early stage, but it has been generally recognized by the working group that habitat conservation in San Bernardino County may require a different approach than the direction taken in Riverside County. The initial thinking is that investments in habitat conservation should be coordinated regionally, allowing resources for habitat acquisition and management to be optimized, but implemented locally. It has also been stressed that habitat conservation priorities should be science-based,

hence the need to assemble the best possible biological data. An initial strategy can be put in place that is refined, over time, through gradual improvement in the supporting biological data.

Financial Impact: This activity is not included in the FY 2006-2007 budget. The requested amount is \$138,584, to be funded with a combination of available Measure I Valley Traffic Management and Environmental Enhancement funds (\$113,584) and Local Transportation Fund – Planning (\$25,000). Task TN 11207000, Regional Growth Forecast Development

Reviewed By: This item will be reviewed by the Plans and Programs Committee on June 21, 2006

Responsible Staff: Steve Smith, Principal Transportation Analyst
Ty Schuiling, Director of Planning and Programming

PURCHASE ORDER REQUEST

NOTE: Do not use a purchase order for construction projects, roadwork, purchase or lease of real property, and employment contracts.

Short Description of PO to be included in monthly procurement report.
(Required) Use up to a maximum of 27 characters to provide a short description.

Biological data collection,
analysis, and mapping

VENDOR: County of San Bernardino - County Museum

Vendor ID

ADDRESS: 2024 Orange Tree Lane, Redlands, CA

PHONE: (909)307-2669

☐ Process payment from this PO Request – invoice is attached.

PO End Date (required): June 30, 2007

PO # (if released for RFP/RFQ): P07023

Item Description	Order Quantity	Task #	Cost Code	Amount
Biological data collection, analysis, and mapping		1120700 0		\$ 138,584
				\$
				\$
				\$
				\$
				\$
Shipping/Handling				\$
TOTAL				\$ 138,584

Attach any special instructions that are to be noted on the purchase order.

Please answer the following questions regarding the selection process:

Was the County Pre-Approved Vendor List used? ☒ No ☐ Yes

Was an informal competitive bid process done? ☒ No ☐ Yes -- complete Informal Bid Process Form (Page 2).

Is this a sole source purchase order? ☐ No ☒ Yes - If so, why? Using SB County staff with specific expertise in biological data collection and analysis to supplement SANBAG staff capabilities for the development of enhanced biological mapping for San Bernardino County

Requested By: Steve Smith

Date June 15, 2006

P.O. Manager's Signature

Steve Smith

Date 6/15/06

Approved by Task Manager (Signature)

Filename: Agreements\PO07023

ATTACHMENT 1

SCOPE OF WORK BIOLOGICAL RESOURCE MAPPING BY THE SAN BERNARDINO COUNTY MUSEUM

THE BASIC STRATEGY

The objective is to develop biological resource GIS data layers of sufficient quality to allow for long term conservation planning in conjunction with long-range estimates on future growth, anticipated land use changes, and infrastructure development. The strategy for developing the biological resource data layers is as follows: Refine the target area and define the target species list. Identify the existing and pertinent data sets. Obtain and compile the data in the appropriate GIS data layers and formats. Supplement the data sets with limited field work in areas where resource information is low or lacking. Perform limited analyses of existing Valley Plan habitat/fitness relationships for some target species or target species assemblages. Coordinate with SANBAG GIS group or their agent for the final biological resource layers and GIS product. Spread the effort (and cost) over three years to minimize annual expenditures. The individual components of the proposed strategic approach are discussed below.

TARGET SPECIES

The target species for the GIS biological resource layers have yet to be identified. Potential screening factors that might be useful could include federal and state listed or proposed threatened and endangered species. A second level filter could reasonably include state sensitive and species of special concern, along with federal "C1" candidates. A third level filter should include species having no federal or state status, but for which there is sufficient information to suspect they could be advanced to endangered, threatened, and/or sensitive status in the future. All relevant plant and animal species should be considered in formulating the target species list. A rough estimate of the number of target species, based on previous conservation efforts in the San Bernardino Valley, might range from eighty to one hundred species of plants and animals combined.

COLLECTIONS RECORDS

Currently existing biological point and polygon data will constitute a large majority of the data used to populate the geospatial data layers. Collections records and field study reports constitute the majority of the available biological resource point data. Sources for these data include, but are not necessarily limited to SBCM accession records, SBCM field study point data, credible consultant reports, collections data from the Museum of Vertebrate Zoology and the Los Angeles County Natural History Museum, the California Natural Diversity Data Base (NDDDB), U.S. Fish and Wildlife (FWS) species account coverages for threatened and endangered species, and FWS coverages for critical habitat. Nearly all of these data sources are obtainable without cost to the user. However, significant staff time will be encumbered to search and

consolidate data from the disparate sources, integrate the different data formats, convert field and provenience data to geographical coordinates, update accession records, etcetera.

The largest amount of biological resource data resides with SBCM. The biological data come from the now defunct Valley Plan MSHCP, other SBCM field studies, SBCM specimen collections, and unaccessioned but already collected biological material.

Significant data contributions can be obtained from the collections of other museums, including but not limited to The Museum of Vertebrate Zoology at Berkeley, and the Los Angeles County Natural History Museum.

The California NDDDB is a third source for data. The NDDDB has limitations. The data are based on observations, not specimens, and therefore rely on correct species identification in the field by individuals with varying degrees of skill. Though most NDDDB observations no doubt are made by qualified individuals, unusual location records may require verification. Lastly, NDDDB records are compiled from compliance surveys presaging land use changes, so an unknown number of the NDDDB biological records may no longer be relevant. Despite the anticipated weaknesses, the NDDDB does contain a potentially significant amount of useful biological resource mapping data.

The FWS Species Accounts are compiled and distributed by the Carlsbad FWS Field Office. The accounts are compiled from reports submitted to FWS by the bioconsulting industries in compliance with FWS 10a permits to survey for federally threatened and endangered species. Data in the species accounts are not complete in that they are restricted to species' detections during protocol surveys and do not include incidental observations of threatened and listed species. This small short coming of the FWS species accounts will be offset by SBCM observations, probably the largest source of incidental observations of threatened and endangered species in the target area.

The FWS Carlsbad Field Office also compiles, maintains, and distributes GIS Critical Habitat data layers. Critical Habitat data layers are kept current and accurate for those species with approved critical habitat designations. Species for which Critical Habitat has not officially been designated are not available.

Other potential point data sources are available in the form of consultant reports for small and large projects (the upper Santa River Conservation Plan or Fontana HCP for example). The point data from these reports will require more effort to convert to a GIS data layer and may or may not offer significant additions to the biological resource data layers. The use of these reports will be evaluated on a case by case basis using a cost/benefit approach to determine the amount of new and/or important data they can contribute versus the cost (effort) needed to reformat the data.

UNPROCESSED COLLECTIONS DATA

SBCM presently has a back log of material pertinent to mapping the biological resources in the target area. The backlogged materials are composed of approximately 2000 individual herptile, small mammal, and avian specimens, the majority of which are small mammals. These unprocessed specimens embody significant and current

biological resource distribution and abundance data. In short, they are a large set of recent specimen based field records, already collected, but in an unprocessed format. The number of specimens and their collection locations relative to the target area should be a significant contribution to the biological resource data layer mapping effort.

SUPPLEMENTAL FIELD WORK

Existing data may not be found for the entire target area. Areas with vague or limited biological information may or may not require limited field sampling. We anticipate that some data may be lacking for portions of the high desert that fall within the target area. We also expect that some locations within the target area may require closer scrutiny due the biological sensitivity of the location and/or compliance considerations. In short, field sampling on a limited basis may be required, depending on the inferences that can be drawn from the existing data and the sensitivity of the area.

SUPPLEMENTAL ANALYSES

Life history/habitat data sets for herptiles, mammals, and birds currently exist from the now defunct Valley Plan. For target species with little to no available life history/habitat information, analyses of the existing information from the Valley Plan, at least to a limited degree, could be useful in determining which habitat type or sub-type is best preserved for a particular species or suite of species. Supplemental analysis of existing life history/habitat data are minor and ancillary to the proposed project. The primary effort of the proposed project necessarily and correctly focuses on the consolidation and compilation of existing biological resource data. Nevertheless, a limited analysis of pertinent data could accomplish several objectives. First, it could yield sufficient information on habitat/fitness or life history relationships, thereby enabling a legitimate means of defining habitat quality for some species or suite of species. Many species occur in varying habitat gradations, habitat preservation usually conflicts with other land uses, and habitats available for preservation are limited. These three facts inevitably result in conflicting decisions over which areas of habitat ought to be preserved and the basis for the decision(s). A partial analysis of the existing species and habitat data could yield useful tools to define which habitat areas ought to be preserved. Second, adaptive management plans are not necessarily within the scope of the biological resource mapping, but will likely become a compliance issue that soon follows. Successful adaptive management plans depend to a large degree on refining the understanding of the life history and habitat associations of specific species or suites of species. Attempts to develop adaptive management plans are typically initiated after land use decisions have been made. This approach inevitably diminishes the options for developing successfully adaptive management plans and frequently contributes to land use controversies. Utilizing the existing data, to the extent possible, before or concomitant with the land use decisions will result in better decisions and create more options for developing successful adaptive management plans in the future.

STAFF COORDINATION

The role for SBCM is to identify and compile biological resource data in a format appropriate for GIS data layers. SBCM will be working closely with the SANBAG GIS staff or their agent to produce the final GIS data layers and maps. A successful product will rely on close communication and coordination between the museum and the GIS group.

COMMENTS

Costs are difficult to estimate for many components of the budget estimate, so the budget must be flexible. For example, data from disparate sources have disparate formats. Some data sets will need little manipulation to convert to the desired geospatial format, some will require a disproportionate amount of manipulation. For another example, the amount of field work needed to fill in missing data gaps should be minimal, but cannot be accurately determined until well into the process. Small adjustments will likely be necessary and are anticipated. The budget costs were estimated with these and other contingencies in mind and, equally as important, to deliver the final product within the budget estimates.

Cost Estimate for Biological Mapping by the San Bernardino County Museum

COLLECTION RECORDS	3-Year Project			Project Costs		Project Hrs.		hr. est.
	Costs	by Task	Hours	by Task	Project Hrs.	YEAR 1		
<u>SBCM Record Sources</u>								
SBCM accession records & field reports	\$90,100.00	\$90,100.00	1700			\$30,033.33	566.7	
<u>Other Records Sources</u>								
MVZ	\$16,960.00		320		300	\$22,746.67	426.7	
NDDB	\$400.00							
NDDB	\$16,960.00		320		300			
LACM	\$16,960.00		320		300			
FWS E/T and CH accounts	\$16,960.00	\$68,240.00	320		300			
UNPROCESSED COLLECTIONS DATA								
Herps, Mammals, Avian material	\$95,400.00		1800		1800	\$31,800.00	600.0	
S&S: Prep work	\$3,000.00	\$98,400.00			1800.0	\$1,000.00		
SUPPLEMENTAL FIELD WORK								
Admin costs (12%)	\$63,600.00		1200		1200	\$21,200.00	400.0	
mileage	\$11,340.00		27000			\$3,780.00		
S&S: Field work	\$3,000.00	\$77,940.00			1200.0	\$1,000.00		
STAFF COORDINATION								
Admin costs (12%)	\$35,824.80					\$11,957.60		
Senior Staff	\$24,000.00		320		160	\$8,000.00	106.7	
Bio Staff GIS Coord.	\$21,200.00	\$81,024.80	400		400	\$7,066.67	133.3	
TOTALS	\$415,704.80	\$415,704.80	6460		6460	\$138,584.27	2233.3	
FTE			3.11				1.07	

- San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
■ San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies

Minute Action

AGENDA ITEM: 10

Date: June 21, 2006

Subject: Scope of Work for COMPASS Blueprint Implementation:
Transportation-Land Use Integration on Multiple Central and East Valley Sites

Recommendation:* Approve Scope of Work.

Background: The Southern California growth visioning process known as "COMPASS" has been in progress for several years under the auspices of the Southern California Association of Governments (SCAG). In general, the COMPASS program is intended to promote development styles that are supportive of improved transportation mobility and access, livable, desirable communities, environmental quality, and economic vitality, while supporting and preserving existing stable residential neighborhoods. The COMPASS program is reflected in the 2004 Regional Transportation Plan, and substantial shares of the mobility and air quality benefits of the RTP are in fact attributed to the COMPASS Program rather than infrastructure projects.

The Inland Valley and San Bernardino Valley areas of San Bernardino County are recognized to have many of the Region's most significant development and redevelopment areas with potential to support these goals. Of these, several have been under study or are currently undergoing detailed COMPASS studies: downtown Upland, the New Model Colony portion of the City of Ontario, and the Depot District and downtown redevelopment areas of the City of San Bernardino. Staff's review of existing land use and general plan information, as well as

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Approved
Plans and Programs Policy Committee

Date: _____

Moved: _____ *Second:* _____

In Favor: _____ *Opposed:* _____ *Abstained:* _____

Witnessed: _____

discussions with local elected officials, their staff, and members of the development community, indicate that many more important areas of COMPASS-style development potential exist, from northeastern Ontario through Fontana and Rialto, to eastern San Bernardino and Highland in the vicinity of San Bernardino International Airport.

SCAG has indicated that it would jointly fund, with SANBAG, a consultant-supported effort in collaboration with the local governments to identify and define these key areas, assess ways in which each area could be developed or redeveloped in accordance with the COMPASS principles, and obtain public ideas and input on these development concepts. Ultimately, subject to acceptance by the affected local governments, these concepts could be integrated into the long-term regional growth vision and socioeconomic forecast. Such a forecast would also meet the needs of the San Bernardino County Long Range Transit Plan, currently under development through other efforts, for a transit-supportive land use alternative.

Staff believes that the proposed effort has potential to improve recognition of the spectrum of development styles and opportunities that are becoming available and marketable in San Bernardino County as its economy and transportation system mature, and its population grows larger and more diverse. In turn, these may yield significant transportation benefits, improved air quality, and other benefits such as more diverse and affordable housing opportunities.

Procurement of the consultant for this study will be undertaken by SCAG, with SANBAG and SANBAG member agency participation. The agreement with SCAG for sharing of cost and management of funds will be brought forward separately at a later time.

Financial Impact: This item is consistent with the approved Fiscal Year 2006-2007 Budget.

Reviewed By: This item will be reviewed by Local government staff and the Plans and Programs Policy Committee on June 21, 2006.

Responsible Staff: Ty Schuiling, Director of Planning and Programming

**COMPASS BLUEPRINT IMPLEMENTATION
TRANSPORTATION-LAND USE INTEGRATION ON MULTIPLE SITES
SAN BERNARDINO ASSOCIATED GOVERNMENTS
Scope of Work for SCAG RFP
(SCAG 2006/07 OWP)**

Budget: \$450,000

Schedule: 10 months

Project Description

The Central and East Valley portions of San Bernardino County (generally extending east from the City of Ontario) contain many areas of non-conforming uses, aging infrastructure, and underutilized lands in proximity to regional transportation facilities. These economically depressed or simply unused residential, industrial, commercial, and brownfields areas represent prime opportunities for redevelopment, with specific attention being given to integration with transportation initiatives. Redevelopment plans will particularly focus on Metrolink station areas on the San Bernardino Line, express transit lines contained in the San Bernardino County BRT master plan, including the E Street BRT for which a RSTIS study was recently completed, the Long Range Transportation Plan for San Bernardino County, and development/redevelopment opportunities associated with the new 210 freeway and the ongoing reuse efforts at San Bernardino International Airport. The redevelopment strategy will be implementation-oriented, developing institutional and financial strategies that incentivize the private sector to invest in these areas and to move forward with transit-friendly and pedestrian-friendly development consistent with the principles in the Compass Blueprint.

Scope of Work

Task 1: (Re-)Development Opportunity Site Identification

Work with the San Bernardino Associated Governments (SANBAG) and its member agencies to identify opportunity areas, within the portion of the Inland Valley-San Bernardino Valley that extends from northeastern Ontario to east of San Bernardino International Airport, with potential for extensive development or redevelopment in accordance with the principles of the Compass Blueprint that are supportive of transit, non-motorized alternatives, and auto accessibility, environmental and community quality, residential livability and affordability, and economic vitality.

Deliverable: Written report identifying (7-10) specific strategic opportunity areas for (re)development consistent with the principles of the Compass Blueprint

Schedule: Completion within 2 months of contract start

Task 2: Community Workshops/Charettes

Hold community workshops/charettes in each of the selected opportunity areas to identify community issues, concerns, desires and opportunities; meet with individual stakeholder groups and elected officials as needed. The charettes are intended to improve the communities' understanding of the meaning and impacts of the potential new development. The charettes will build upon previous discussions and conclusions such that the community views themselves as a partner in the evolution of community and development considerations.

Deliverable: Workshop/charette, reports and graphic materials describing outcomes and milestones achieved for each of the 7-10 selected project areas

Schedule: Completion within 4 months of project start

Task 3: Scenario Planning

Utilizing information from the community workshops and other relevant inputs, work with the affected local governments to conduct scenario planning within each of the specified strategic opportunity areas identified in Task 1. Develop targeted visions for growth appropriate for the community and consistent with the Compass Blueprint principles. Include

Deliverable: Project area visions for each of the 7-10 selected project areas

Schedule: Completion within 6 months of project start

Task 4: Develop Conceptual Land Use Plans

Based on the visions, develop a conceptual land use plan for each identified site that includes, but is not limited to, identification of appropriate types of land uses, densities and scales of development, site-specific opportunities to recycle vacant or under-utilized buildings and sites, potential transportation alternatives, economic development opportunities.

Deliverable: Conceptual land use plans for each of the 7-10 selected project areas

Schedule: Completion within 8 months of project start

Task 5: Marketing & Implementation

Assist the affected local governments in developing public support for the visions in the respective areas and support actions to incorporate the visions into local general plans through the creation of marketing materials. These may include before & after photo-simulations, renderings, urban design strategies, market feasibility analyses, proposed zoning changes, fact sheets highlighting local benefits of proposed visions, web materials, etc.

Deliverable: Customized marketing materials appropriate for each of the 7-10 selected project areas

Schedule: Completion within 10 months of project start

Task 6: Socio-economic Data Set Development

Distill the agreed-upon visions into socioeconomic data sets for population, households and employment in 5-year increments to 2035 for use in modeling to support preparation of the SANBAG and Omnitrans Long-Range Transit Plan, corridors plans for proposed light rail projects, BRT initiatives, and SCAG's Regional Transportation Plan (RTP).

Deliverable: Socio-economic data sets reflecting the development potential for each of the 7-10 selected project areas

Schedule: Completion within 10 months of project start

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- San Bernardino County Transportation Commission •San Bernardino County Transportation Authority
•San Bernardino County Congestion Management Agency •Service Authority for Freeway Emergencies
-

Minute Action

AGENDA ITEM: 11

Date: June 21, 2006

Subject: Measure I 2010-2040 Strategic Plan Workshop on Project Cost Estimates and Revenue Projections

Recommendation:* Receive information.

Background: On May 31, 2006, the Board of Directors held the first of several Measure I 2010-2040 Strategic Plan development workshops to receive information on and lessons learned from past Measure I strategic planning and policy development, and to gain acceptance of substantial increases to project costs that have occurred since Expenditure Plan project data were compiled in 2002 and 2003 as well as more modest increases to Measure I sales tax revenues. Presentations and detailed documentation of changes to both project costs and sales tax revenue forecasts have been presented at past meetings the Plans and Programs Committee, but similar detail was not provided at the workshop because of the breadth of material that was covered during the three hour meeting. At the workshop, Board members requested circulation of the detailed support material through policy committees for further review by Board members and their staff. The material has also been considered by the CTP Technical Advisory Committee. Attachment A is the support material on cost escalation, including the methodology for development of project cost estimates. Attachment B is support material for the revised revenue forecast, including a report by Dr. John Husing and additional information on demographic and economic factors supplied by staff.

Approved
Plans and Programs Policy Committee

Date: _____

Moved:

Second:

In Favor:

Opposed:

Abstained:

Witnessed: _____

Board members in attendance at the workshop developed written questions for further discussion. These are shown below, accompanied by preliminary responses from staff:

1. ***When do we explore bonding for projects to move up delivery times (and hopefully reduce costs)?*** There are many issues that need to be addressed before bond financing can be considered. The first major issues are the timing and magnitude of the need for construction funds. None of the Valley Major Projects – including I-215 South - will be ready to go to construction until sometime in the next decade. It is the project development and environmental clearance process that comprises the critical path for these projects rather than the availability of construction funding. There is no reason to bond finance if the projects are not ready for construction, and it is difficult as yet to forecast the exact timing of project delivery because of the vagaries of the NEPA process to which all these projects will be subjected. In addition, it would be unwise to incur the cost of bonding if the construction expenditure requirements are projected to not exceed Measure I and other state and federal program funding. That said, the strategic plan is likely to reflect a need for bond financing for projects that are cleared for construction in the next decade because staff believes that several large projects can be made shelf-ready within a few years of one another, and their cost is likely to exceed our ability to pay-as-you-go. These factors will be considered in the analysis of bond financing alternatives presented as part of the strategic plan. Depending on the timing and certainty of the bond financing requirements, hedging strategies will also be analyzed.
2. ***Absent sufficient capital to build the needed infrastructure, will there be social or regulatory controls that lessen traffic in the next decade?*** If transportation system capacity cannot meet transportation demand, it is expected to negatively affect quality of life and economic vitality. Absent wholesale technological change, the resulting congestion will impact environmental quality as well. Absent regulatory controls, travel demand in this case will be “managed” in a de facto sense by the added cost of time lost to congestion. Alternatively, demand could be managed through imposition of time-of-day fees for use of the system during periods of highest demand when capacity is most valuable. The regulation of demand by congestion imposes delay equally, but cost of that delay can vary widely, as in the case of a joy-rider versus an emergency response vehicle.
3. ***Do we need further clarification on adjustment of developer mitigation/nexus fees and possible increases for municipalities to impose?*** Annual adjustments to development contributions to keep pace with escalation or de-escalation of project costs are a requirement of fair-share development mitigation programs. In the long term, if project costs escalate faster than revenues, a challenge to be addressed through the Strategic Plan is maintenance of adequate public match on projects for which development contributions have been collected. This could appropriately be accomplished through state and federal transportation funding levels that are better aligned with need.

4. ***Valley Expenditure Plan 1990-2010 – Does 2% cover all the environmental mitigation costs including any done by local jurisdictions?*** The 2% Valley Traffic Management/Environmental Enhancement Program (TMEE) funds do not and were never intended to fund mitigation of the direct impacts of transportation projects. Instead, it is used principally as “seed money” to leverage other resources. Direct impact mitigation is considered part of the project cost. “Indirect” or “induced growth” impacts of transportation projects, however, are not included in project costs and should probably be funded with non-transportation resources.
5. ***Can we combine projects for environmental study (by areas or by entire projects rather than phases)?*** We are generally required to prepare environmental analyses for entire projects rather than phases. For very large projects designed and constructed over many years, this often means that in addition to the original environmental document prepared for the entire facility, periodic environmental re-evaluations are required to ensure that the analysis is current and that any scope changes through time are considered.
6. ***What should be the financial contribution of Nevada, Arizona and points east to I-15?*** Nevada contributed \$10 million to the I-15 widening between the Victor Valley and Barstow. Prior to that, Nevada interests also contributed \$4m for I-15 widening through Barstow and were actively involved in gaining Congressional discretionary earmarks for San Bernardino transportation improvement projects. We hope they continue to contribute to projects of mutual benefit such as the Devore Interchange in the future.
7. ***What are the cost estimates for I-10 and I-15 based upon? (2006 Cost estimate is 300% higher than Caltrans current estimate on I-10 HOV \$1.25 billion vs. \$400 million)*** The basis for SANBAG's cost estimate for the I-10 project is detailed in Attachment A of this item. It should be noted that in addition to higher materials costs, the scope (length) of the Expenditure Plan project is greater than was contemplated by Caltrans.
8. ***What is the status of Riverside County's “215 South” project? Are they still committed to the project?*** Project development work on the I-215 South project is in progress, and it is hoped that it will be ready to go to construction by about 2012, subject to timely completion of the NEPA document and completion of design. Riverside continues to be committed to the project, although that situation should be monitored.
9. ***Can we use Regional/Major street funds for local streets?*** Valley Major street funds are to be allocated to projects by action of the SANBAG Board of Directors. It is not envisioned that funds intended for improvements to regionally significant Valley arterial roadways will be allocated to local street projects. The Mountain/Desert Expenditure Plan provides that the Mountain/Desert Committee could make a finding, after five years of revenue collection, that Major Local Highway Project funds are not required for Major Local Highway Projects in specific subareas. In such a case, the Major Local Highway Projects revenue can be returned to jurisdictions in such subareas for local

streets. Staff believes this is unlikely given the extensive list of known projects in all subareas.

10. ***Are Public Private Partnership revenues in the projected plan?*** No. It appears likely that two or more major highway projects will be capitalized, constructed, and operated by private entities, but neither the full costs of these projects nor the private revenues were included in the Expenditure Plan. The Expenditure Plan does call for modest contributions to development and environmental clearance of these facilities as needed to control risk and render them attractive to private investment.
11. ***Do we want to get projects shelf ready?*** Yes. Given the vagaries of the environmental clearance process, the need to identify, protect, and acquire right-of-way at the earliest possible time, and the benefits of having a "shelf" of projects to take advantage of special funding opportunities, staff believes it is clearly in our interest to proceed with simultaneous project development on several and varied projects.
12. ***How comfortable are we with the projection of cost escalation?*** The project cost escalation information presented to date are historic (not forecast) data, based on actual records, and substantiated with data from member agencies in both the Valley and Victor Valley areas of San Bernardino County. As noted in the presentations, the project costs are based on engineering estimates under today's conditions and in today's dollars. This enables us to compare costs with revenues that are also calculated in today's dollars. Prior to final design and consideration of actual right-of-way needs, the costs can only be considered estimates, but they reflect standard engineering practice and judgement.
13. ***How is performance factored in?*** Following acceptance of cost and revenue updates, the strategic planning effort will focus on project prioritization policies and procedures to guide the allocation of Measure I and other revenues considered in the Expenditure Plan. The relative performance of competing projects as measured by benefit/cost or other criteria would clearly be among the factors considered, although other criteria such as project readiness and geographic equity will be considered as well.

This item is to be scheduled for further discussion at the July Board of Directors meeting, and issues specific to the Mountain/Desert Subregion will be discussed in more detail at the Mountain/Desert Committee meeting in July. Interaction among programs, project prioritization, project sequencing, and integration of development financing will be among the next topics to be discussed in the Strategic Plan development process.

Financial Impact: This item is consistent with the approved Fiscal Year 2005-2006 Budget.

Plans and Programs Agenda Item

June 21, 2006

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Reviewed By: This item will be reviewed by the Plans and Programs Policy Committee on June 21, 2006. A similar item was reviewed by the Major Projects Committee on June 15, 2006, and the Mountain/Desert Committee will discuss it further on July 21, 2006.

Responsible Staff: Ty Schuiling, Director of Planning and Programming

ppc0606a-ty.doc

Attachments: brd0605c2-ty; Strategic Plan – Basis of Cost for Major Projects Cajon and Mountain Desert – 060614.doc
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DRAFT

San Bernardino Associated Governments

Measure I Growth Forecast FY 2006 to FY 2040

Compiled By

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April 17, 2006

Final

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San Bernardino Associated Governments

Measure I Growth Forecast: FY 2000 to FY 2040

Executive Summary

Forecast Summary. The attached forecast has the following conclusions:

- SANBAG earned net revenue of \$1,152,839,000 during the 15-years including FY 90-91 through FY 04-05.
- In the remaining 5-years of Measure I (FY 05-06 to FY 09-10), the estimated net amount of the tax would be another \$744,690,000 in constant 2005 dollars.
- For the full 20-years of Measure "I", the total net revenue is thus estimated at \$1,897,529,000.
- For the 30-years of the extended Measure "I", the net revenue is estimated at \$8,352,430,000 in constant 2005 purchasing power.
- Including the last five years of the original Measure "I" (\$744,690,000), the total anticipated constant dollar anticipate net revenue of \$9,097,119,000.

Accuracy Summary. The accuracy of the forecast depends upon the accuracy and pattern of the following assumptions:

- Population Growth is that assumed by SCAG's 2008 RTP forecasting committee.
- Per Capita Taxable Sales Growth, not including inflation, will be 3.58% in normal or good times and 0.00% in two-year recessions for the next nine years. This will fall to 2.75% with two recession years for the next nine years (FY 15-FY 23) as the economy matures and then 1.75% with four recession years during the next 17-years with complete economic maturity (FY 24-FY40).
- Rate of CPI inflation growth of 0.00% is assumed so the forecast is in 2005 purchasing power.
- The difference between "point of sale" retail sales and "point of delivery" retail sales is 5.8% except a period when it will go from 4.76% in FY 04-05 up to 5.8% in FY 09-10, rising in 0.25% per year increments.
- SBOE fees growth are 1.5% of net revenue to SANBAG.
- There will be nothing like the restructuring caused by the end of the Cold War, as there is no parallel vulnerability in the economy.

Conservative Bias. The calculations have a conservative bias as the changes occurring in the San Bernardino's economy in 2005 will likely lead to increases in the assumed 3.58% rate of increase in per capita constant dollar retail sales spending through FY 14. The 2.75% in FY 15 and 1.75% in FY 24 as the county's economy matures appear likely. With recessions, these rates yield compound growth in each period, respectively, of 2.75%, 2.15% and 1.34%.

Forecast Calculation. Exhibit 1 on the next two pages presents the forecast calculations. FY 89-90 to FY 04-05 are historical. FY 05-06 to FY 39-40 are estimated. The relevant forecasting assumptions are given at the top of each column, with summary statements about them in the exhibit footnotes. The exhibit's creation is explained in depth by the discussion following the exhibit.

Exhibit 1 (continued) - SANBAG Measure 1 - 1/2 Cent Sales Tax Receipts, Past & Forecasted FY 2011 to FY 2040

Fiscal Year	Population		Per Capita Sales		Real Taxable Sales		Consumer Prices		Taxable Sales		Point of Delivery			SANBAG Revenue			
	Jan. 1st	Growth	Taxable	No inflation	Growth	(000)	CPI	Growth	Current \$	Growth	Percent	Difference	Current \$	Gross Current \$	Net Current \$	Change	
Source	Exhibit 2	Exhibit 3	FY 05=100	Exhibit 3	FY 05=100		Exhibit 4	FY 05=100	(000)				(000)	(000)	(000)		
Factor	SCAG	Note #4		Note #4	% #6		Exhibit 4		#6 * #8		5.8%	#10-#12	#10-#13	#14*0.5%	#17*	% #17	
FY 90 to FY 10	2.04%	1.62%	3.69%	2.03%	\$404,133,339	5.79%	2.03%	0.00%				\$18,558,045	\$385,576,346	\$1,927,877	\$30,348	\$1,897,529	5.80%
10-11	2,159,000	1.66%	\$16,200	0.00%	\$34,975,800	1.4%	100.0%	0.0%	\$34,975,800	1.4%	5.80%	\$2,029,900	\$32,945,900	164,730	2,434	162,295	1.43%
11-12	2,195,000	1.66%	16,800	3.53%	36,876,000	5.4%	100.0%	0.0%	36,876,000	5.4%	5.80%	2,140,200	34,735,800	173,679	2,567	171,112	5.43%
12-13	2,231,000	1.66%	17,400	3.58%	38,819,400	5.3%	100.0%	0.0%	38,819,400	5.3%	5.80%	2,253,000	36,566,400	182,832	2,702	180,130	5.27%
13-14	2,268,000	1.66%	18,000	3.58%	40,824,000	5.2%	100.0%	0.0%	40,824,000	5.2%	5.80%	2,369,300	38,454,700	192,274	2,841	189,432	5.16%
14-15	2,306,000	1.66%	18,500	2.75%	42,661,000	4.5%	100.0%	0.0%	42,661,000	4.5%	5.80%	2,475,900	40,185,100	200,926	2,969	197,956	4.50%
15-16	2,339,000	1.42%	19,000	2.75%	44,441,000	4.2%	100.0%	0.0%	44,441,000	4.2%	5.80%	2,579,200	41,861,800	209,309	3,093	206,216	4.17%
16-17	2,372,000	1.42%	19,500	2.75%	46,254,000	4.1%	100.0%	0.0%	46,254,000	4.1%	5.80%	2,684,500	43,569,500	217,848	3,219	214,628	4.08%
17-18	2,406,000	1.42%	20,000	2.75%	48,120,000	4.0%	100.0%	0.0%	48,120,000	4.0%	5.80%	2,792,800	45,327,200	226,636	3,349	223,287	4.03%
18-19	2,440,000	1.42%	20,000	0.00%	48,800,000	1.4%	100.0%	0.0%	48,800,000	1.4%	5.80%	2,832,200	46,967,800	229,839	3,397	226,442	1.41%
19-20	2,475,000	1.42%	20,000	0.00%	49,500,000	1.4%	100.0%	0.0%	49,500,000	1.4%	5.80%	2,872,800	48,627,500	233,136	3,445	229,691	1.43%
20-21	2,506,000	1.27%	20,600	2.75%	51,623,600	4.3%	100.0%	0.0%	51,623,600	4.3%	5.80%	2,996,100	50,682,900	243,138	3,593	239,544	4.29%
21-22	2,538,000	1.27%	21,200	2.75%	53,805,600	4.2%	100.0%	0.0%	53,805,600	4.2%	5.80%	3,122,700	52,774,400	253,415	3,745	249,669	4.23%
22-23	2,570,000	1.27%	21,800	2.75%	56,026,000	4.1%	100.0%	0.0%	56,026,000	4.1%	5.80%	3,251,600	54,432,800	263,872	3,900	259,972	4.13%
23-24	2,603,000	1.27%	22,200	1.75%	57,786,600	3.1%	100.0%	0.0%	57,786,600	3.1%	5.80%	3,353,800	56,116,100	272,164	4,022	268,142	3.14%
24-25	2,636,000	1.27%	22,600	1.75%	59,573,600	3.1%	100.0%	0.0%	59,573,600	3.1%	5.80%	3,457,500	57,759,300	280,581	4,147	276,434	3.09%
25-26	2,666,000	1.16%	23,000	1.75%	61,318,000	2.9%	100.0%	0.0%	61,318,000	2.9%	5.80%	3,558,700	59,447,100	288,797	4,268	284,529	2.93%
26-27	2,697,000	1.16%	23,400	1.75%	63,109,800	2.9%	100.0%	0.0%	63,109,800	2.9%	5.80%	3,662,700	60,130,400	297,236	4,393	292,843	2.92%
27-28	2,728,000	1.16%	23,400	0.00%	63,835,200	1.1%	100.0%	0.0%	63,835,200	1.1%	5.80%	3,704,800	60,835,700	300,652	4,443	296,209	1.15%
28-29	2,760,000	1.16%	23,400	0.00%	64,584,000	1.2%	100.0%	0.0%	64,584,000	1.2%	5.80%	3,748,300	62,593,000	304,179	4,495	299,683	1.17%
29-30	2,792,000	1.16%	23,800	1.75%	66,449,600	2.9%	100.0%	0.0%	66,449,600	2.9%	5.80%	3,856,600	64,364,800	312,965	4,625	308,340	2.89%
FY 11 to FY 30	1.38%	1.93%	3.33%	0.00%	\$1,029,383,200	3.33%	0.00%	0.00%				\$59,742,600	\$969,840,600	\$4,848,203	\$71,648	\$4,776,555	3.39%
30-31	2,821,649	1.06%	24,217	1.75%	68,330,458	2.8%	100.0%	0.0%	68,330,500	2.8%	5.80%	3,965,700	66,186,600	321,824	4,756	317,068	2.83%
31-32	2,851,612	1.06%	24,640	1.75%	70,264,554	2.8%	100.0%	0.0%	70,264,600	2.8%	5.80%	4,078,000	68,060,000	330,933	4,891	326,042	2.83%
32-33	2,881,894	1.06%	25,071	1.75%	72,253,395	2.8%	100.0%	0.0%	72,253,400	2.8%	5.80%	4,193,400	69,986,400	340,300	5,029	335,271	2.83%
33-34	2,912,498	1.06%	25,510	1.75%	74,298,530	2.8%	100.0%	0.0%	74,298,500	2.8%	5.80%	4,312,100	71,967,500	349,932	5,171	344,761	2.83%
34-35	2,943,426	1.06%	25,957	1.75%	76,401,552	2.8%	100.0%	0.0%	76,401,600	2.8%	5.80%	4,434,100	74,214,700	359,838	5,318	354,520	2.83%
35-36	2,983,133	1.35%	26,411	1.75%	78,787,264	3.1%	100.0%	0.0%	78,787,300	3.1%	5.80%	4,572,600	76,230,500	371,074	5,484	365,590	3.12%
36-37	3,023,375	1.35%	26,411	0.00%	79,850,095	1.3%	100.0%	0.0%	79,850,100	1.3%	5.80%	4,634,300	78,610,800	376,079	5,558	370,521	1.35%
37-38	3,064,160	1.35%	26,411	0.00%	80,927,284	1.3%	100.0%	0.0%	80,927,300	1.3%	5.80%	4,696,800	81,065,500	381,153	5,633	375,520	1.39%
38-39	3,105,495	1.35%	26,873	1.75%	83,454,296	3.1%	100.0%	0.0%	83,454,300	3.1%	5.80%	4,843,500	83,054,500	393,054	5,809	387,245	3.12%
39-40	3,147,388	1.35%	27,343	1.75%	86,060,236	3.1%	100.0%	0.0%	86,060,200	3.1%	5.80%	4,994,700	85,065,500	405,328	5,990	399,337	3.12%
FY 31 to FY 40	1.21%	1.40%	2.62%	0.00%			0.00%	0.00%				\$44,725,200	\$726,902,600	\$3,629,513	\$63,638	\$3,575,876	2.62%
FY 11 To FY 40	1.32%	1.75%	3.10%	0.00%			0.00%	0.00%				\$104,467,800	\$1,695,543,200	\$8,477,716	\$125,286	\$8,352,430	3.10%

2. Population growth rates from Exhibit 2. Population from January 1, 2011-2040 is from preliminary work for SCAG's 2008 forecast Regional Transportation Program by its Forecast Committee.
4. Estimated FY 11-FY 40 per capita constant dollar retail sales growth at 3.58% based on average from FY 95-FY 05 in Exhibit 3, lowered to 2.75% in FY 14-15, and lowered to 1.75% in FY 23-24 to converge toward Orange County behavior. Two year recessions with 0.00% growth occur every nine years.
6. CPI assumed constant from FY 11-FY 40.
12. 5.8% difference between Sales at "point of sale" vs. Sales at "point of delivery" based upon FY 99 to FY 05 average.
16. State Board of Equalization fee assumed to be 1.5% of the actual receipts of SANBAG in #17. That is 1.5% is based upon the actual share from FY 91 to FY 05.
- 17 SANBAG point of receipt figure in #15 divided by (1+1.5%). This yields SANBAG actual receipts less SBOE fee

Population Growth. The starting point in calculating the Measure I growth forecast is San Bernardino County's population (*Exhibit 1, columns 2-3*). This is the case as there is a strong link between taxable sales and SANBAG's revenue and the county's population. According to the CA Department of Finance, January 1, 1990-2005, the population increased from 1,418,380 to 1,946,202 (*Exhibit 2*). San Bernardino County's population thus grew at a compound rate of 2.13% during the 15-year period (*FY 90-FY 05*). This period includes the deep recession at the end of the Cold War plus the ensuing recovery, the short recession (*FY 01-02*) and recent rapid expansion.

Exhibit 2-Population Growth Rates & Compound Rate San Bernardino County January 1st, Mid-Year					
Year	DOF Population	%Growth	Year	SCAG Forecast	%Growth
1989-90	1,418,380	NA	2001-2	1,794,507	2.7%
1990-91	1,463,068	3.2%	2002-3	1,842,904	2.7%
1991-92	1,516,250	3.6%	2003-4	1,897,950	3.0%
1992-93	1,548,375	2.0%	2004-5	1,946,202	2.5%
1993-94	1,561,873	1.0%	SCAG 2008 RTP Preliminary Forecast		
1994-95	1,573,973	0.8%	2005-2010		1.77%
1995-96	1,590,823	1.1%	2010-2015		1.66%
1996-97	1,613,700	1.4%	2015-2020		1.42%
1997-98	1,637,900	1.5%	2020-2025		1.27%
1998-99	1,666,553	1.7%	2025-2030		1.16%
1999-00	1,710,139	2.6%	2030-2035		1.06%
2000-01	1,747,822	2.2%	2035-2040		1.35%
FY 90-05 Compound Rate					2.13%

Source: CA Department of Finance SCAG 2008 Regional Transportation Program preliminary forecast

San Bernardino County's population growth is forecasted to grow 1.77% from FY 05-FY10, followed by gains of 1.66% from FY 10-FY 15, 1.42% from FY 15-FY20, 1.27% from FY 20-FY25, 1.16% from FY 25-FY 30, 1.06% from FY 30-FY 35 and 1.35% from FY 35-FY 40. These forecasts are the preliminary estimates of SCAG's forecasting working group for the 2008 Regional Transportation Program (*RTP*). The estimates are slightly faster than the forecasts for the 2004 RTP due to the county's most recent experience. They are based upon estimates of births, deaths and migration into the region. The general estimate of slowdowns is because of the anticipated baby boomer retirement period and the gradual reduction in available land.

Per Capita Taxable Sales, No Inflation. Given a certain number of people, the next step is to forecast how much taxable spending there will be for *each person*. In reviewing the historic data, the impact of price inflation was removed so that price increases could be disclosed as a separate variable in the forecast.

Exhibit 3 shows the taxable trade figures for San Bernardino County, from FY 90-FY 05 in column 6. The data are from the CA Board of Equalization. These numbers are divided by mid-year population during each fiscal year in column 7 to yield per capita taxable trade in column 8. The Los Angeles-Anaheim-Riverside Consumer Price Index (*FY 04-05 =100*) in column 9 is divided into these figures to yield the per capita taxable trade figures as if prices for each of these past years were at the level they had reached by FY 04-05.

Historically, *non-inflated* taxable trade per capita fell during Southern California's severe post-Cold War recession of the early 1990's. In the 10-year period from FY 94-95 to FY 04-05, growth returned with *non-inflated* per capita sales reacting to a variety of economic conditions: a halting recovery, a strong expansion, the FY 01-02 recession and the recent rapid expansion. For the period since FY 04-05, the compound rate was 3.58%. The early 1990's period is not included in forecasting because it represented an historical anomaly that will like not occur again. There is no sector of Southern California's economy that could shrink like the defense sector did during that period of time.

**Exhibit 3.-Per Capita Retail Sales, Adjusted for Inflation
Fiscal Year FY 90-91 to FY 04-05 (using FY 2005 = 100 dollars)**

1	2	3	4	5	6	7	8	9	10	11
Fiscal Year	Taxable Trade				Fiscal Year (000)	Population Jan-1 st mid-yr.	Taxable Trade Per Capita	CPI FY 05=100	Taxable Trade Per Capita No Inflation	% Chg
	Qtr-3 (000)	Qtr-4 (000)	Qtr-1 (000)	Qtr-2 (000)						
1990-1	2,848,393	2,919,922	2,516,129	2,774,303	11,058,747	1,463,068	7,559	70.8	10,714	-9.04%
1991-2	2,866,361	2,913,549	2,535,200	2,874,815	11,219,925	1,516,250	7,400	73.1	10,126	-5.48%
1992-3	2,835,547	2,912,827	2,542,748	2,813,357	11,104,479	1,546,375	7,181	75.5	9,516	-6.03%
1993-4	2,804,500	2,971,193	2,694,237	2,917,961	11,387,841	1,561,875	7,291	76.8	9,495	-0.22%
1994-5	2,980,172	3,251,046	2,803,900	3,148,532	12,133,700	1,573,975	7,741	78.0	9,926	4.54%
1995-6	3,178,423	3,351,404	3,020,912	3,296,620	12,847,359	1,590,825	8,076	79.0	10,219	2.95%
1996-7	3,253,860	3,555,331	3,194,304	3,519,236	13,522,531	1,613,700	8,380	80.8	10,399	1.76%
1997-8	3,503,531	3,787,945	3,346,355	3,733,631	14,371,462	1,637,900	8,774	81.7	10,737	3.24%
1998-9	3,860,390	4,061,921	3,758,416	4,172,145	15,852,872	1,666,555	9,512	83.2	11,438	6.53%
1999-00	4,271,022	4,585,795	4,273,350	4,755,533	17,385,700	1,710,139	10,459	85.5	12,234	6.96%
2000-01	4,843,377	5,013,178	4,563,892	4,955,609	19,376,066	1,747,822	11,086	88.7	12,502	2.19%
2001-02	4,961,555	5,203,087	4,714,033	5,171,947	20,050,622	1,794,507	11,173	91.2	12,253	-2.00%
2002-03	5,327,336	5,636,186	5,134,813	5,654,939	21,753,274	1,842,904	11,804	93.9	12,572	2.61%
2003-04	5,804,353	6,005,842	5,823,646	6,486,527	24,120,363	1,897,950	12,709	96.1	13,225	5.20%
2004-05	6,725,871	7,170,123	6,517,210	7,037,882	27,451,086	1,946,202	14,105	100.0	14,105	6.65%

Compound Growth Rate Of Real Per Capita Sales FY 94-95 to FY 04-05

3.58%

Sources: Taxable Retail Sales, CA State Board of Equalization.; Los Angeles-Anaheim-Riverside Consumer Price Index, U.S. Bureau of Labor Statistics; Population, CA Department of Finance

With this entire experience in mind, San Bernardino County per capita taxable sales *without inflation* are forecasted to rise 3.58% per year in non-recession periods from FY 06-10. This is the growth rate in columns 4 & 5 of Exhibit 1. Every nine years, the modeling assumes that a two-year downturn will occur during which period there will be 0.00% in constant dollar per capita sales. On of these years affects FY 05-10, and leads to a compound rate of 2.85% for this period.

For the extended Measure "I":

- From FY 10-FY 14, the compound rate of 3.58% continues to apply as this completes a period the same length as the period for which that rate was derived. In addition, the aggressiveness of San Bernardino County's economy can be expected to exist as it closes retail gaps with the addition of high-end retail stores. Further, the county's upscale

housing stock will be attracting higher income residents. For this period, there is also one recession year. For the full FY 05-FY 14 period the rate of growth of constant dollar per capita retail sales would be 2.75% due to the two recession years. For reference, Orange County's forecast in this period puts its growth of this measure at 0.52%, an oddity.

- From FY 15 to FY 23, the rate of growth of constant dollar per capita retail sales in San Bernardino County is slowed to 2.75% as the county is assumed to become a more mature economy with a lower level of closing off of retail sales gaps occurring and the force of the migration of upper income families moderating. With the two recession years in this period, the actual compound growth rate is 2.15%. For reference, Orange County's forecast in this period puts its growth of this measure at 1.53%.
- From FY 24 to FY 40, the rate of growth of constant dollar per capita retail sales in San Bernardino County is slowed to 1.75% as the county is assumed to have now reached maturity. With the four recession years in this period, the actual compound growth rate is 1.37%. For reference, Orange County's forecast in this period puts its growth of this measure at 1.56%.

Total Taxable Sales, No Inflation. In Exhibit 1, each year's population (*column #2*) is multiplied by its non-inflated taxable sales per capita (*column #4*) to get the estimated total taxable sales as if there was no inflation from FY 05-06 to FY 39-40 (*column #6*). From FY 05-06 onward, the dual impact of growth rates in population and non-inflated per capita taxable sales drive the constant dollar taxable sales level.

Exhibit 4.-Consumer Price Index, LA-Anaheim-Riverside, Fiscal Years (2005 = 100)			
1	2	3	4
Fiscal Year	CPI 1982-84=100	CPI FY 05=100	Change
1989-1990	131.9	66.9	
1990-1991	139.0	70.6	5.42%
1991-1992	144.0	73.1	3.53%
1992-1993	148.7	75.5	3.27%
1993-1994	151.3	76.8	1.76%
1994-1995	153.7	78.0	1.55%
1995-1996	155.7	79.0	1.34%
1996-1997	158.8	80.6	1.96%
1997-1998	161.0	81.7	1.42%
1998-1999	163.9	83.2	1.78%
1999-2000	168.5	85.5	2.79%
2000-2001	174.7	88.7	3.72%
2001-2002	179.7	91.2	2.84%
2002-2003	185.0	93.9	2.96%
2003-2004	189.4	96.1	2.35%
2004-2005	197.1	100.0	4.07%
FY 89-90 to FY 04-05 Compound Rate			3.15%

Note 1: FY 2005 reaches 197.1 on a 1982-1984=100 base. It serves as the denominator in creating the FY 2005=100 series.

Source: U.S. Bureau of Labor Statistics, forecast by Economics & Politics, Inc.

Consumer Price Index Increases. In order to make the constant dollar forecast of San Bernardino County's total taxable sales, it was necessary to determine the historical rate of increase in prices (*Exhibit 4*). Column 2 shows the actual Los Angeles-Anaheim-Riverside Consumer Price Index for the years from FY 89-90 (131.9) to FY 04-05 (197.1). These data are from the U.S. Bureau of Labor Statistics. They are on a 1982-1984=100 base. The estimated level for FY 04-05 of 197.1 is based upon the experience from July 2004 to June 2005. Dividing each number in column 2 by 197.1, gives the equivalent value of the index on a basis of FY 2005=100 base. This is done in column 3. The percentage changes of both columns are the same. The compound rate of inflation for this 16 year period was 3.15%.

Interpreting these data: if a basket of goods cost \$100 in FY 2005, they would have cost \$73.10 in FY 89-90 and \$96.10 in FY 03-04. Note that prices rose 5.42% in Southern California between FY 89-90 and FY 90-91. The rise slowed dramatically during the middle 1990's but has been rising of late ending at a 4.07% gain in FY 04-05. Again, for the 16-year period, the compound rise was 3.15%.

Note: In the forecasting work, the rate of inflation is held constant since it affects both the revenue and cost sides of SANBAG's work. This allows the forecasts to be thought of in 2005 purchasing power terms. The difficulty is, of course, the fact that in recent years, costs have risen at much more than the inflation rate. Whether that will continue is an issue that policy makers must carefully weighing the conclusions of this report.

Total Taxable Sales, Including Inflation. SANBAG's revenues are based upon ½ percent of San Bernardino County's actual taxable sales. To estimate actual taxable sales in Exhibit 1, it is necessary to multiply the estimated price level (*column 8*) times the uninflated estimate of sales calculated earlier (*column 6*). The result appears in column 10. Since inflation is held constant in future years, the constant and current dollar taxable sales data are identical from years FY 05-06 to FY 39-40.

For historic years from FY 89-90 (\$11,181,155,000) through FY 04-05 (\$27,451,086,000), this calculation results in the actually recorded taxable sales for the county during this period. Note that during the post-Cold War recession (FY 90-91-FY 92-93), the impact of rising prices modified the reduction in constant dollar sales dramatically. In this period, taxable trade without inflation respectively fell -6.2%, -2.0% and -4.2%. Taxable trade including inflation was basically flat: falling -1.1%, rising +1.5% and then falling -1.0%. In the recovery and expansion period, taxable trade including inflation grew even faster, rising from 2.6% in FY 93-94 to a powerful 12.8% in FY 2000 before slowing to 3.5% rate during the recession of FY 01-02 and accelerating to 13.8% in FY 04-05.

Total Taxable Sales Forecast, No Inflation. Looking ahead, the 0.00% inflation assumption means San Bernardino County's taxable sales rise simply because of added people with increased constant dollar per capita retail spending. In 2005 dollars, this would take taxable sales to \$34,482,581,000 by FY 09-10. The compound rate of increase from FY 04-05 to FY 09-10 would be 4.67% (*Exhibit 1, column 10-11*). From FY 09-10 to FY 39-40, taxable sales would reach \$6,060,236,000 in 2005 dollar terms. The compound rate of increase in this 30-year period would be 3.10%. The slower rate would occur because several recession periods fall into this longer time frame and the rate of per capita constant dollar retail sales slows as discussed earlier.

"Point of Delivery" Taxable Sales. SANBAG's tax revenues are not based upon San Bernardino County's total taxable sales as traditionally measured at the "point of sale". Rather, they are based upon $\frac{1}{2}$ percent of the sales at the "point of delivery". In the county's case, taxable volume measured at the "point of delivery" is less than taxable volume at the "point of sale". This occurs because the region's many manufacturing and distribution facilities record sales within the county that are actually delivered elsewhere in California. Such sales show up in the county's "point of sales" data. However, they are not part of the "point of delivery" sales that are used for calculating SANBAG's tax receipts.

Until FY 96-97, "point of sales" taxable volume averaged about 1.5% more than "point of delivery" volume in San Bernardino County (*Exhibit 1, columns 12-13*). However since then, they have fluctuated between 4.5% (FY 01-02) and 7.6% (FY 99-00). The most recent figure was 4.8% in FY 04-05. The average difference since FY 96-97 has been 5.8%. That figure is used for forecasting purposes. The modeling assumes the "point of sale" taxable volume grows from 4.8% in FY 04-05, up 0.25% per year until it reaches 5.8% and remains there through 2040.

"Point of delivery" taxable sales reached \$26,145,049,000 in FY 04-05 (*Exhibit 1, column 14*). Using these assumptions, it will be \$32,481,300,000 in FY 09-10 and climb to \$81,065,500,000 in FY 30-40.

SANBAG Gross Revenue. To calculate SANBAG's estimated gross revenue from Measure I, the taxable sales levels must be multiplied times the $\frac{1}{2}$ % tax rate (*Exhibit 1, column 15*). It shows that before the CA State Board of Equalization (SBOE) took their fee for processing the tax, SANBAG earned \$1,172,017,000 during the 15-years including FY 90-91 through FY 04-05. In the remaining 5-years of Measure I (FY 05-06 to-FY 09-10), the estimated gross amount of the tax would be another \$755,860,000. For the full 20-years of Measure "I", the total revenue is thus estimated at \$1,927,877,000. For the 30-years of the extended Measure "I", the gross revenue is estimated at \$8,477,716,000.

CA Board of Equalization Fees. The amount that CA State Board of Equalization (SBOE) charges for processing the tax in the past 14-years has varied from 1.1% of actual receipts to 2.3% (*Exhibit 1, column 16/column 17*). It is assumed that the SBOE fee will be 1.5% of the amount of net revenue to SANBAG (*Exhibit 1, column 17*).

SANBAG Net Revenue. To estimate net revenue to SANBAG is necessary to take the estimated gross revenue (*Exhibit 1 column 15*) and divide by 1+1.5%. This divides out the amount of the 1.5% fee and yields net revenue to the agency (*Exhibit 1, column 17*). Taking 1.5% of this level yields the SBOE fee (*Exhibit 1, column 15*).

SANBAG earned net revenue of \$1,152,839,000 during the 15-years including FY 90-91 through FY 04-05. In the remaining 5-years of Measure I (FY 05-06 to-FY 09-10), the estimated net amount of the tax would be another \$744,690,000 in constant 2005 dollars. For the full 20-years of Measure "I", the total net revenue is thus estimated at \$1,897,529,000. For the 30-years of the extended Measure "I", the net revenue is estimated at \$8,352,430,000 in constant 2005 purchasing power. Including the last five years of the original measure (\$744,690,000), the total anticipated constant dollar anticipate net revenue of \$9,097,119,000.

Accuracy Summary. The accuracy of this forecast depends upon the accuracy and pattern of the following assumptions:

- Rate of Population Growth is that assumed by SCAG's 2008 RTP forecasting committee.
- Growth of Per Capita Taxable Sales, not including inflation, at 3.58% in normal or good times and 0.00% in two year recessions occurring during the next nine year cycle. After that, it drops to 2.75% for nine years with two recession years. It then drops to 1.75% for seventeen years with four recession years. The recession years lower the compound growth rates in these period, respectively, to 2.75%, 2.15% and 1.37%.
- Rate of CPI inflation growth of 0.00% so the forecast is in 2005 purchasing power.
- Difference between "point of sale" retail sales and "point of delivery" retail sales is 5.8% except a period when it will go from 4.76% in FY 04-05 up to 5.8% in FY 09-10, rising in 0.25% per year increments.
- SBOE fees growth are 1.5% of net revenue to SANBAG.
- A recession occurs in FY 09-10 and FY 10-11 and in nine year cycles thereafter.
- There will be nothing like the restructuring and downturn caused by the end of the Cold War in the county's future, as there is no parallel vulnerability to the defense sectors that were downsized in Southern California and San Bernardino County.

Conservative. This analyst believes that these assumptions are quite realistic and tend to the conservative direction. The most important assumption is that of the 3.58% increase in constant dollar per capita taxable retail spending for the next nine years, followed by reductions to an intermediate rate of 2.75% from FY 15 to FY 24, and to 1.75% in FY 25 to FY 40. It requires further comment. This estimate would be high if affected by the following potential issues:

- The U.S. savings rate is at a negative level for the first time in over 50-years. Could this mean that there will be a serious reduction in spending in the future, causing retail sales to be abnormally low in San Bernardino County?

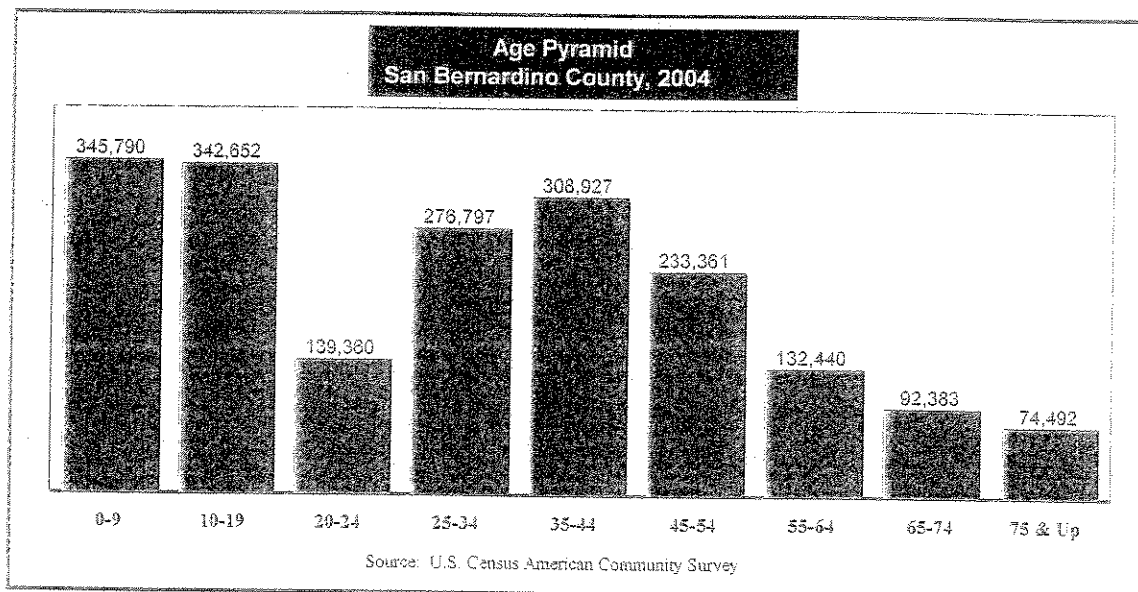
There may be some truth in this worry, however, this is a U.S. not a local issue. In addition, low savings rates have always been a U.S. phenomenon, worse at some times than others. The particularly low rate right now is because rising real estate values have caused people to treat real estate as an investment. Rather than sell this asset, they have borrowed part of their increased wealth and spent it. This show up as decreasing savings. As long as property values have a "soft" landing, this phenomenon will not be a problem. Even if it is, at worst, it may cause a short term national recession. However, that would cause no more long term damage to spending behavior than any similar such difficulty in the recent past.

Localizing this phenomenon, a soft-landing scenario appears likely for the Inland Empire's housing market since the region's real estate prices have seen a run-up fundamentally due to a Southern California housing shortage. Those who will be hurt in the next couple of years will be the small minority of families that over-extended on mortgages in 2005. Prior to that, there was a sufficient appreciation in property values to protect the borrowers. It thus appears unlikely that either the national

negative savings rate or a local real estate crash will cause per capita constant dollar retail spending to fall below the 3.58% assumption made in the modeling.

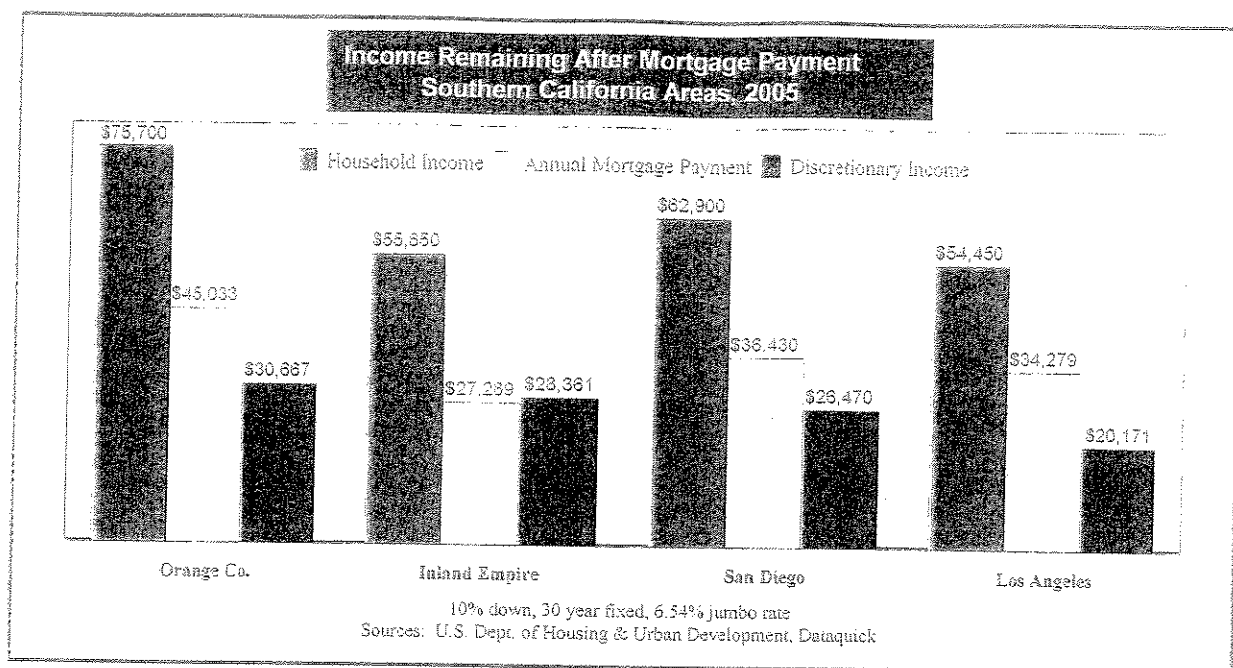
- There is a potential concern in the age pyramid that has the oldest baby boomers (*born in 1946*) beginning to retire in 2011 at age 63. Could this lead to declining household incomes and constant dollar per capita spending in the 29-years from then until 2040 as retirees become a disproportionately larger segment of the population?

Again, this is a national question. For San Bernardino County, there are several important nuances. The first is the fact that the county is not one in which baby boomers are the dominant age group. In 2004, this group was aged 40-59. Note that they were not part of the dominant age groups in the region. This is the case because the migration of families to the county is driven by housing and whether families are buying entry-level or high-end homes, they tend to be younger and have children.



Thus, there were 827,802 people under 25 in the county in 2004 and just 674,728 from age 35 to 64, only some of whom were 40-59 year old baby boomers.

Meanwhile, though the number of retirees will jump and their incomes will go down, this does not necessarily translate into a significant decline in their retail spending. This is the case because this class of people has both retirement income as well as the largest amount of saved assets of any group in the population. In addition, the Inland Empire's property values will work to the advantage of local people who retire and the retirees who will move here. Thus, Orange County's (\$75,700) median income is over \$20,000 higher than the Inland Empire (\$55,600), but deducting one year's mortgage payments on the median home in the two areas, Orange County's spendable income for non-mortgage related items is only \$2,000 higher.



Even at a national level, the fear that national per capita spending will drop discounts the fact that, historically, the U.S. economy has always responded to periods of labor shortage with powerful productivity gains. This would likely be the case in a period with large numbers of retirees supported by a smaller base of working individuals.

Slowing Per Capita Retail Growth. As stated, in FY 15, it is assumed that the aggressive phase of San Bernardino County's economic maturity will start to wane. An intermediate rate of growth of constant dollar per capita retail sales is thus assumed at 2.75%. This is consistent with the idea that the forces making the county's growth so rapid will be playing out and it will begin to approach the behavior of a mature economy such as today's Orange County. With recessions, this rate results in 2.15% compound growth in this period. Orange County's Measure M Forecasts is at 1.53% for this time frame. By FY 24, it is assume that full maturity will have occurred. The economy will thus act very much like Orange County, except without its coastal wealth. For that reason the 1.75% rate was chosen. With recessions, this yields a compound rate of 1.34% for the 17-years through to FY 40. This compares to 1.56% in Orange County's modeling of Measure M during this period.

Underestimating? The assumption of 3.58% constant dollar per capita spending for nine years, followed by reductions to 2.75% and 1.75% would be underestimates of the long term trend if several factors come into play:

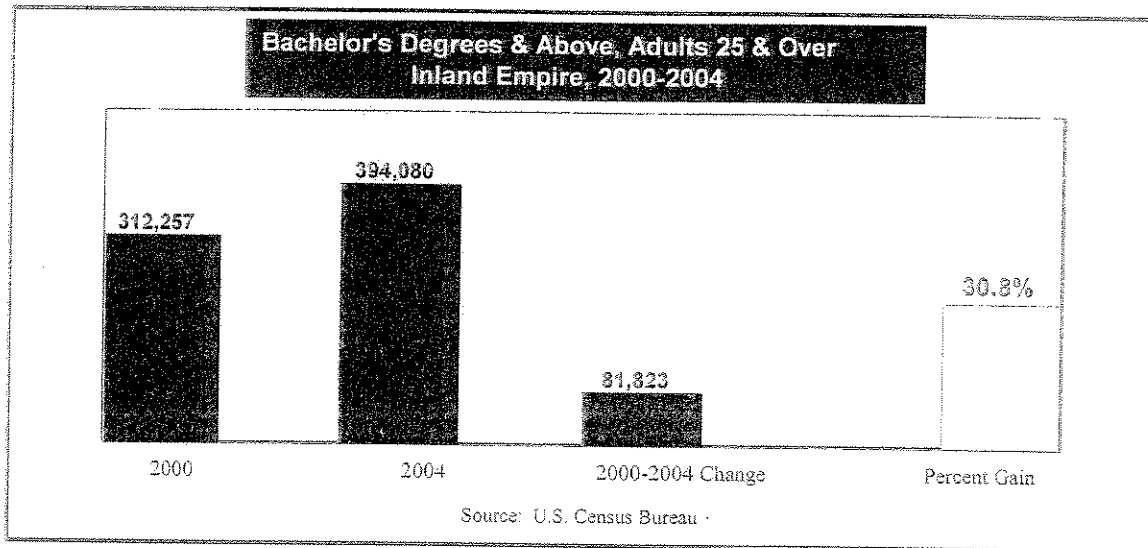
- Since 2000, there has been a shift in the migration pattern into the Inland Empire with increasing numbers of well-educated people buying high-end homes in the area. They are doing so because this level of housing is beyond their incomes in the coastal counties. Will these people raise the constant dollar per capita spending in the region?

There is every reason to suspect that the answer to this question will be "yes". From 2000-2004, the growing base of upscale homes in the Inland Empire has caused the number of people 25 and over with bachelor's degrees and above to grow by 30.8%

or 81,828. Higher educations, high incomes and greater retail spending are, of course, closely correlated.

- Since the extraordinary success of Victoria Gardens, high-end retailers are looking for potential sites throughout the Inland Empire. Will these outlets raise the constant dollar per capita spending in the region beyond its historical experience?

With the incomes of many residents of the Inland Empire much higher than those historically in the area, upscale retailers are now flocking to the area. They will undoubtedly increase constant dollar per capita retail spending in the region by eliminating the outflow of this type of spending to areas like South Coast Plaza in Orange County and Old Town Pasadena in Los Angeles County.



- Meanwhile, the new residents are bringing their skills with them. How are they affecting the local economy's long term prospects?

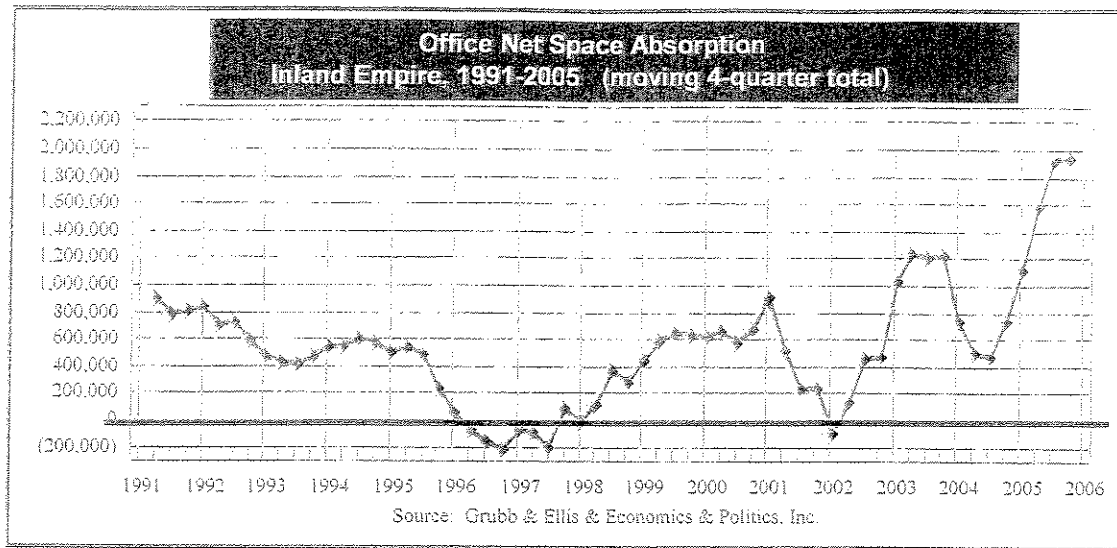
Historically, once an area begins to acquire a better educated workforce, it becomes competitive for firms and operations that have heretofore not considered locating in it. That is now beginning to happen to the Inland Empire. In 2005, the area saw a record number of firms in the professions, management consulting and the sciences expand in the region.

Another sign that this is occurring has been the recent take-off in the office market. This form of real estate had been dormant for over a decade. However, it is now at a record level of net space absorption, rents are now at levels found in adjacent coastal county markets and the 7.0% vacancy level is the lowest in the suburban U.S.

When an economy begins to shift towards white collar jobs this generally means higher average pay will follow since they generally pay better than blue collar jobs, even for non-professional positions.

Most likely, these forces would be most likely to affect the 3.58% figure for the next nine years than the periods afterwards. However, the impact of higher figures in the earlier years has a

greater affect on the total growth of the Measure I revenue stream because it raises the base upon which later growth is calculated.



On balance, the forces that would tend to cause San Bernardino County's constant dollar per capita retail spending to be higher in the future appear to be much stronger than those that might move it in the opposite direction. For this reason, this analyst feels the 3.58% forecasting assumption for the next nine years, with the 0.00% growth in a nine year cycle of recession years is likely an underestimate. The later cycles appear at this time to likely be within the bounds of reason with growth falling to 2.75% and then 1.75%.

How do the forecasts for San Bernardino County compare to Orange County? Below it is assumed that Orange County's per capita constant dollar retail sales grow at 1.5% from FY 05 through FY 11. That is the rate assumed by analysts forecasting that economy's behavior over the next several years. Given that assumption, the following is the year by year comparison of constant dollar per capita retail sales for San Bernardino and Orange Counties. Note that in each case, Orange County's figures remains above those of San Bernardino County.

Fiscal Year	San Bernardino	Orange Co.	Fiscal Year	San Bernardino	Orange Co.
2005-06	\$14,609	\$17,359	2023-24	\$22,200	\$22,805
2006-07	\$15,132	\$17,617	2024-25	\$22,600	\$23,204
2007-08	\$15,673	\$17,886	2025-26	\$23,000	\$23,598
2008-09	\$16,233	\$18,156	2026-27	\$23,400	\$24,019
2009-10	\$16,233	\$18,429	2027-28	\$23,400	\$24,420
2010-11	\$16,200	\$18,705	2028-29	\$23,400	\$24,833
2011-12	\$16,800	\$18,989	2029-30	\$23,800	\$25,255
2012-13	\$17,400	\$19,272	2030-31	\$24,217	\$25,676
2013-14	\$18,000	\$19,566	2031-32	\$24,640	\$26,098
2014-15	\$18,500	\$19,861	2032-33	\$25,071	\$26,568
2015-16	\$19,000	\$20,147	2033-34	\$25,510	\$27,040
2016-17	\$19,500	\$20,459	2034-35	\$25,957	\$27,517
2017-18	\$20,000	\$20,786	2035-36	\$26,411	\$27,715
2018-19	\$20,000	\$21,107	2036-37	\$26,411	\$28,093
2019-20	\$20,000	\$21,425	2037-38	\$26,411	\$28,459
2020-21	\$20,600	\$21,738	2038-39	\$26,873	\$28,820
2021-22	\$21,200	\$22,089	2039-40	\$27,343	\$29,180
2022-23	\$21,800	\$22,439			

What will be the dollars generated by the current Measure "I" from 1989 to its completion in 2010? The total generated in 1989 dollars is:

Fiscal Year	Measure "I" Revenue (000)	CPI 1989-90=100	Measure "I" Revenue 1989-90=100
89-90	\$4,128	1.000	\$4,128
90-91	\$54,780	1.054	\$51,968
91-92	63,784	1.092	\$49,253
92-93	54,748	1.128	\$48,554
93-94	64,842	1.147	\$47,796
94-95	57,961	1.165	\$49,742
95-96	62,037	1.181	\$52,536
96-97	64,847	1.204	\$53,858
97-98	69,420	1.221	\$56,851
98-99	73,244	1.243	\$58,943
99-00	81,436	1.277	\$63,755
00-01	89,987	1.325	\$67,919
01-02	94,458	1.363	\$69,323
02-03	102,151	1.403	\$72,815
03-04	110,351	1.436	\$76,857
04-05	128,793	1.494	\$86,196
FY 91 TO FY 05	\$1,152,839		\$910,496
05-06	135,398	1.494	90,617
06-07	142,340	1.494	95,263
07-08	149,637	1.494	100,146
08-09	157,307	1.494	105,280
09-10	160,006	1.494	107,086
FY 05 to FY 10	\$744,690		\$498,391
FY 1990-2010	\$1,897,529		\$1,408,887

It was forecasted in FY 1989-90 that Measure "I" would bring in \$1.617 billion dollars in total revenue over its lifetime. In fact, the measure will bring in about \$1.409 billion in constant dollar 1989-90 terms. This reduction occurred despite the aggressive behavior of retail sales in recent years. The reason for the lower figure was the very slow activity during the post-Cold War depression in Southern California. This points out the impact on the forecast of lower than expected activity in the early years.

Plans and Programs Policy Committee

*2010-2040 Measure I
Strategic Plan*

June 21, 2006

*2010-2040 Measure I Strategic Plan
Cost Estimate Update Basis and Assumptions
June 8, 2006 (Updated June 14, 2006)*

Since the passage of the 2010-2040 Measure I Extension in November, 2004, the highway industry has experienced staggering cost increases. With few exceptions, every material used by the highway construction industry has experienced dramatic price increases and, in many cases, reduced availability. To compound the material price and availability issues, fuel price increases have (and continue to) also negatively affected the cost of nearly every construction item. Cost estimates contained in the 2010-2040 Measure I Expenditure Plan were developed in 2001 and 2002 using cost data that was a year or two years old at the time. To evaluate the effects of the substantial changes, the costs estimates in the San Bernardino Associated Governments 2010-2040 Measure I Expenditure Plan have been updated. The intent of this update is to identify changes to the Measure I Expenditure Plan cost estimates, determine the impacts of recent construction price increases, and establish a new cost baseline for the Measure I Expenditure Plan. As mentioned, the price increases have been dramatic and in turn have caused a substantial increase to the Measure I Expenditure Plan. For example, the total cost of the San Bernardino Valley Freeway program has doubled from that of the original estimates prepared for the Measure I Expenditure Plan.

The updated cost estimates contained within this attachment are generally based on conservative assumptions. Conservative, within this context, simply means that the scope of improvements assumed herein are to *full Caltrans standard* and include all of the needed improvements necessary to meet those standards. Many times design exceptions (i.e., exceptions from the standard design criteria) are granted which may help reduce project scope and costs. Other times, however, it is assumed that a design exception will be obtained only to later find out that the exception will not be granted. Typically this results in increased costs since the improvement or effect of the improvement was not anticipated. Whether an exception is actually granted is important, and for the purposes of these estimates, we have assumed that improvements will be to full standard with few exceptions. It must be noted that this assumption is only for our cost estimate basis and it should not be taken to mean that staff will not make every effort develop a reasonable scope of work for every project and vigorously pursue design exceptions as necessary.

The updated cost estimates are based on an assumed project scope of work *and* on a set of cost factors that were established for this purpose. The assumed scope of work for each project is provided in various levels of detail throughout this document. As for the cost factors, historical data was analyzed and incorporated into various cost factors that account for the major expenses on highway projects. The updated cost estimates are supported by specific factors and assumptions that are outlined within each individual estimate. Highway projects are large undertakings that will be (or have been) under development for a considerable length of time. It has been SANBAG's experience that as time passes additional items of work will be added to these projects which will increase their size, complexity, and costs. We have attempted to account for these items using that past experience and other available information. For instance, where complicated freeway-to-freeway connections occur we have included a lump sum cost factor to account for the numerous adjustments that will be required. Other factors have also been developed which are described elsewhere in this document.

A brief description of the basic assumptions that apply to nearly every project is listed below. There are some exceptions to these assumptions and those are noted within the specific project descriptions. These basic assumptions are important because they provide the foundation from which we have developed the estimates. The basic assumptions include four items:

First, full shoulder widths have been assumed for both the median and outside shoulders. In some cases the existing freeway median is not wide enough to accommodate a new lane *and* full median shoulder. In these cases we have assumed outside widening will be included and estimated the project costs accordingly. Caltrans' standard for concrete shoulders was enacted several years ago and we have not experienced (nor do we anticipate) any relief from the standard given the ultimate nature of these projects.

Second, auxiliary lanes are becoming increasingly accepted as an effective and efficient operational improvement. Given the conceptual level of these estimates, it is difficult to estimate the number or length of auxiliary lanes that will be required. Nevertheless, we have attempted to include a length and cost for auxiliary lanes as appropriate to each project.

Third, over the past several years concrete has become the primary material for paving freeway travel lanes and shoulders. Concrete reduces the maintenance requirements and worker exposure

on freeways, but it also is more expensive than asphaltic concrete (at least initially). We have assumed that all of the freeway projects will be paved with concrete unless otherwise noted.

Lastly, we have separated the costs associated with 'interchange' projects and 'mainline freeway' projects so that costs are not counted twice. In many instances existing bridges span an existing freeway and must be replaced to accommodate the mainline widening. When a known interchange project does exist, those bridge replacement costs are included in the interchange project estimate and not the mainline estimate.

In addition to the basic assumptions, the general scope of improvement as assumed for each project is listed below. This list provides an overview as to the number of lanes assumed for each project, how the widening has been estimated – e.g., inside widening vs. outside, etc, and other important assumptions. Specific project details are located within each individual estimate and the associated backup materials.

San Bernardino Valley Freeway Project Estimates:

I-10 Widening Project:

The scope of this project estimate includes one HOV lane and shoulder in each direction and an auxiliary lane for a portion of the project. The existing I-10 median is not wide enough to accommodate a full HOV lane, buffer, and shoulder in all areas, so some outside widening will be necessary. This, together with the addition of some auxiliary lanes, means that the outside shoulder will also have to be rebuilt in areas of the project.

I-15 Widening (Riverside County line to I-215)

The scope of this project estimate includes the construction of one HOV lane and shoulder in each direction. On the stretch of I-15 between I-215 and SR-210, the median is generally wide enough to accommodate the new HOV lane and shoulder. South of SR-210, the I-15 median is too narrow to accommodate all of the widening, so some outside widening will be necessary. In addition, an auxiliary lane is anticipated through a portion of this reach.

I-215 Bi-County (Riverside County line to Orange Show Road)

The scope of this project estimate includes the reconstruction of existing I-215 plus the addition of one HOV and one mixed flow lane in each direction. The reconstruction of I-215 (i.e, the rebuilding of the

entire freeway) is necessary due to the high number of non-standard features that exist on the current freeway. All of the project's interchanges will be reconfigured to meet current standards. Also, although the existing pavement within this reach is asphaltic concrete, we believe it is prudent to plan for concrete pavement given Caltrans' direction in recent years.

Right of way costs are difficult to estimate, but the right of way requirements will be extensive due to the reconfiguration of all of the interchanges. Commercial and light industrial properties are located along the freeway and near many interchanges which will increase the costs of the right of way acquisition. Also, frontage roads that currently parallel the freeway will be relocated which add further to the right of way and overall project complexity issues.

I-215 Widening (SR-210 to I-15)

The scope of this project includes the construction of one lane (HOV or mixed flow) and shoulder in each direction. The existing median does not appear to be wide enough to accommodate the full widening and some outside widening will be necessary along a portion of the project. Near the northern end of the project a moderate amount of right of way will be required to accommodate the relocation of an adjacent frontage road. Also, there are several drainage features have been included in the estimate.

Asphaltic concrete (AC) pavement has been assumed for this project since the existing pavement is AC. Also, portions of the widening will be close to the existing right of way and we have assumed that these portions will fit within the existing right of way. This is not unrealistically optimistic but, it is, nevertheless, worth noting.

SR-210 Widening (I-215 to I-10) – Alternative 1

The scope of this project includes the construction of one lane and median shoulder in each direction in those areas where only two travel lanes currently exist. The entire reach of SR-210 from I-215 to I-10 is approximately ten miles. Of the ten miles, approximately one-half currently has two lanes in each direction and is included in the estimate. Upon completion of the assumed project scope, three continuous mixed flow lanes will stretch from I-215 and I-10. No HOV lanes will exist within the project limits. The project does include a full concrete center barrier over the entire ten mile stretch and soundwalls within the residential portions of the ten mile limit.

SR-210 Widening (I-215 to I-10) – Alternative 2

The scope of this project includes the construction of one HOV lane and median shoulder in each direction from approximately 27th Street (west of I-215) where the existing HOV lane ends to I-10, approximately 11 ½ miles. In addition, one mixed flow lane in each direction will be added where only two travel lanes currently exist, approximately five miles (see Alternative 1). It is anticipated that some outside widening will be necessary within the portion of the project limits where both HOV and mixed flow lanes will be added. Upon completion of the assumed project scope, one HOV and three continuous mixed flow lanes will stretch from I-215 and I-10. The project includes a full concrete center barrier from I-215 to I-10 (approximately 10 miles) and soundwalls within residential portions of the project limits.

Cajon Pass Estimates:

I-15 & I-215 Interchange (Devore Interchange)

The scope of this project estimate includes the reconstruction of the I-15/I-215 interchange as generally depicted in the I-15 Comprehensive Study dated December 20, 2005. The roadway concept assumed for this estimate is to carry two new HOV lanes through the interchange (one in each direction). Doing so will require the reconstruction of most of the connectors and a portion of the I-15 and I-215 mainlines. Our estimate basis reflects four through lanes on I-15 both northbound and southbound, the realignment of southbound I-15/I-215 connector to the west of the interchange, realignment of northbound I-215/I-15, and establishment of truck bypass lanes.

I-15 Cajon Pass Widening

The scope of this estimate includes the construction of one HOV lane and shoulder from the Devore Interchange to US 395. Terrain along the project is steep and fairly rugged and could require a large amount of earthwork. Earthwork was simply estimated as a lump sum volume (five million cubic yards). A new truck climbing lane was not assumed as part of this estimate.

Mountain Desert Area Estimates:

Victor Valley Subarea Projects

The following estimates are for information only and are intended to provide a range of potential costs that may be expected if I-15 through the Victor Valley is widened.

I-15 (US 395 to south of Bear Valley Road – Segment 2)

The scope of this estimate includes the construction of one HOV lane and shoulder in each direction. The existing median does not appear to be wide enough to accommodate the full lane and shoulder width so some outside widening may be necessary. It is assumed that the improvements will fit within the existing right of way and no major modifications to frontage roads will be necessary.

I-15 (Bear Valley Road to Route 18 – Segment 1)

The scope of this estimate includes the construction of one HOV lane and shoulder in each direction. This project is complicated by the limited right of way and narrower median. This combination leads to extensive right of way needs within a developed area and the reconstruction of frontage roads and local improvements along the freeway.

Interchange Projects (Ranchero Road, Eucalyptus St. and Nisqualli Rd/La Mesa Rd)

The estimated costs presented are the most current for the projects as reported by the consultants working on the project development. The costs reflect an average cost for the current range of alternatives and have also been adjusted to include administrative costs.

Detailed Estimate Explanation

The cost estimates are generally based upon per mile cost factors for various items of work. Per-mile factors are then multiplied by the overall project length and in some cases also by a percentage factor meant to account for the estimated length of that item. The overall project length is simply the distance of the project in one direction. If a project consists of constructing two HOV lanes, then the project length is multiplied by the number of lanes (two, for this example). In some cases we have assumed a partial lane (e.g., 0.5) which accounts for roadway widening on a portion of the overall length. Auxiliary lanes are a good example of an item that would not necessarily extend for an entire project length. Once the lane miles are known then a unit cost factor for earthwork and paving is multiplied by the lane miles to determine a cost.

Other items such as retaining walls or soundwalls have been estimated using a percentage of the project distance. A factor of 0.3 for retaining walls would mean that we estimated a retaining wall along 30 percent of one side of the project, or a wall along each side of 15 percent of both sides of the project.

Lengths and factors are typically based upon the project distance listed in the upper right corner of the detailed estimate. Those lengths are then multiplied by a unit rate for retaining wall construction.

One of the most difficult items to estimate is right of way costs. The extent and cost of right of way is many times underestimated. Our right of way estimates are based on the number of acres per mile that will be required for the project. For example, a ten mile widening project might require a relatively small amount of right of way. If so, a factor of 0.25 might be used which would represent 0.25 acres/mile of right of way, or 2.5 acres (roughly 100,000 sf) for the entire project. The difficult determination is estimating the unit cost of land. We have assumed three categories of land: 1) residential; 2) commercial; and 3) undeveloped land. Commercial has been assumed to be most expensive and undeveloped land the least expensive.

The factors used in developing these cost estimates are derived from historical SANBAG cost data as well as other industry cost data. Our most recent data includes that of the I-10 Median Lane Addition project which bid in September, 2005 and represents work very similar to most of the projects contained in the Expenditure Plan - i.e., widening projects on operating freeways. Other historical SANBAG project data have been included, the I-10 project is simply one example. We have also researched other sources and incorporated those data as applicable. We believe that our factors and estimates provide a good representation of the expected costs and that the estimates capture a realistic view of the expected costs.

SAMPLE DETAILED ESTIMATE

SR-30/210 Widening (Alternative 2) from I-215 to I-10

Construct one inside lane and shoulder each direction where needed - about 5 miles. Construct one HOV lane in each direction from 27th Street to I-10 - about 11-1/2 miles	Total Miles	11.5
	Outside Lane constructed over existing shoulder	0.86
	Outside Lane	0
	Outside Shoulder	0.7
	HOV/Inside Lanes	2
	Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost	
1	Project Support				
	Percentage of constr. cost	33%			
	PA/ED				
	Engineering				
	Program Management & Oversight				
	Construction Management				
	TOTAL Project Support Cost				\$86,385,000
2	Right of Way				
	Right of Way (acre/mile)	0.15		\$3,456,486	20% \$230
	Residential (SF)			\$3,381,345	10% \$450
	Commercial (SF)			\$473,388	70% \$9
	Undeveloped land (SF)			\$7,312,000	
	TOTAL Right of Way Cost				
3	Utility Relocations				
	Utilities (cost per mile)			\$15,214,500	factor reduced from 1350
	Low Density	85%	\$1,350,000	\$821,000	
	High Density	2%	\$2,700,000	\$15,336,000	
	TOTAL Utilities Cost				
4	Roadway Construction				
4a	Paving and Earthwork - Outside Widening				
	Earthwork - 1st lane	9.39	\$50,000	\$494,500	
	Earthwork - Other lanes	0	\$485,000	\$0	
	Earthwork - Shoulder	3.05	\$1,495,000	\$12,034,750	
	Pavement - Lanes	9.39	\$573,000	\$5,868,970	
	Pavement - Shoulder	3.05	\$477,000	\$3,839,850	
	Subtotal - Outside Paving and Earthwork			\$22,036,070	
4b	Paving and Earthwork - Inside Widening				
	Earthwork	46	\$58,000	\$2,868,000	
	Pavement - Lanes	23	\$573,000	\$13,179,000	
	Pavement - Shoulder	23	\$477,000	\$10,971,000	
	Subtotal - Inside Paving			\$26,318,000	
4c	Barrier				
	Center barrier per mile	10	\$500,000	\$5,000,000	
	Other barrier per mile	10	\$160,000	\$1,600,000	
	Subtotal - Barrier			\$6,600,000	
	Adjust mileage to account for entire 10 mile reach				
4d	Miscellaneous Paving				
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			\$0	
	Non-Freeway Road/Street	0.00	\$535,000	\$3,600,000	reduced from 175
	Ramp Mod. (ea. ramp)	38	\$100,000	\$3,600,000	
	Subtotal Misc. Paving			\$59,054,070	
	Subtotal Earthwork, Paving, and Barrier				
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs				
	Removals	5%		\$2,952,704	
	Front End Work	15%		\$8,858,111	
	Drainage	8%		\$4,724,326	reduced from 13%
	Electrical	5%		\$2,952,704	
	Miscellaneous	10%		\$5,905,407	
	Subtotal Other Roadway Items			\$25,393,250	
	TOTAL Roadway Construction Cost			\$84,448,000	

SAMPLE DETAILED ESTIMATE

5	Wall Construction -- Soundwalls and Retaining			
	Retaining wall per mile	15%	\$1,900,000	\$3,277,500 reduced from 3000
	Soundwall per mile	75%	\$1,300,000	<u>\$11,212,500</u>
	TOTAL Wall Construction Cost			\$14,490,000
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	372,125	\$232	\$86,333,000
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$86,333,000
	SUBTOTAL CONSTRUCTION COST			\$185,271,000
8	Mobilization	10%		\$18,528,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$27,791,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	2	\$1,000,000	\$2,000,000
	Major Freeway/Freeway I/C	2	\$15,000,000	\$30,000,000
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	0	\$500,000	<u>\$0</u>
	Subtotal Additional Features			\$32,000,000
11	TOTAL CONSTRUCTION COST			\$263,590,000
12	TOTAL PROJECT COST			\$373,723,000
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

Freeway Cost Estimate Unit Rates

Note: Rates subject to adjustment within individual estimates to account for specific project conditions

Definitions:

HOV Lane - 12' inside lane addition (4' buffer is separate)

Inside Lane Addition - 12' inside lane addition

Inside Shoulder - 10' inside shoulder (no buffer is included)

Aux Lane - 12' outside lane (outside shoulder needed and is separate item)

1st Outside Lane Addition - 12' outside lane addition (outside shoulder is likely required but is separate item)

Outside Lane Addition Beyond 1st - 12' lane that is beyond the existing shoulder limit and therefore requires full grading (*see note below)

Outside Shoulder - 10' shoulder (assumes full slope grading and prism since it is assumed to be beyond ex. shoulder).

Misc. Paving - Non-Freeway road or street construction (e.g., frontage rd, reconstruction of local roads, etc)

Misc. Paving - Ramp Modification - Accounts for work necessary to modify ramps near gore points to accommodate outside mainline widening

*Note: In most cases an outside shoulder exists which reduces the amount of rough grading needed for new construction.

Earthwork				Units	Rate
Inside Travel Lane				Mile	\$58,000
Inside Shoulder				Mile	\$49,000
Outside Lane (or Shoulder) - widening adjacent to existing lane or shoulder ⁽¹⁾				Mile	\$50,000
Outside Shoulder (or lane) - beyond existing shoulder				Mile	\$435,000
Out Slope Grading Prism ⁽²⁾				Mile	\$545,000

(1) Note: Calculation of grading quantity for lane or shoulder construction directly adjacent to existing edge of travel way is based on assumption that a shoulder currently exists and the corresponding grading for that portion is minimal. Assumes \$18/cy for earthwork.

(2) Assumes 4:1 slope, average height of 8 feet (4 feet W/O 215 and 12 feet E/O 215), and \$18/cy for earthwork

Mainline Paving

PCC Pavement				Units	Rate
Travel Lane - 12' PCC				Mile	\$573,000
Shoulder - 10' PCC				Mile	\$477,000

Note: Paving cost based upon assumed structural section of 11" PCC, 1" AC bond breaker, and 6" LCB and long life pavement joints

Assumed Cost: PCC cost: \$200/CY; LCB: \$105/CY; AC: \$77/CY

Asphaltic Concrete Pavement				Units	Rate
Travel Lane - 12' AC				Mile	\$357,000
Shoulder - 10' AC				Mile	\$297,000

Miscellaneous Paving

				Units	Rate
Ramp Modification				per ramp loc.	\$100,000

Barriers

				Units	Rate
Center Barrier				Mile	\$500,000
Other Barrier				Mile	\$160,000

Note: Other Barrier category accounts for items such as MBGR, outside shoulder barrier, and other misc. locations

Other Construction Items:

Removals		5%
	Includes items such as demolition, relocations, clear & grub	
Front End and General Project Items		15%
	Includes items such as develop water supply, SWPPP, schedule, constr signs, etc.	
Drainage	(may vary between 5-15%)	15%
	Includes items such as onsite and offsite systems, inlets, modifications to ex. drainage systems	
Electrical		5%
	Includes items such as signals, lighting, temp. signals, controllers	
Miscellaneous		10%
	Includes items such as, perm. striping, signs (OH and posts), erosion control, fencing	

Other Construction Factors' items are applied to the costs of Roadway Paving, Earthwork, and Barrier costs.

Retaining Walls

Wall Height	Units	Rate
4 feet	Mile	\$1,380,000
6 feet	Mile	\$1,800,000
10 feet	Mile	\$3,000,000
14 feet	Mile	\$4,400,000
18 feet	Mile	\$6,200,000
22 feet	Mile	\$8,700,000

Note: Wall height of 10' is typ. assumed.

Sound Walls

	Units	Rate
12 feet high	Mile	\$1,300,000

Note: Cost is based on masonry wall founded on trench footing.

Structures

	Units	Rate
Overcrossing (O/C) Replacement	Sq Ft	\$167
Miscellaneous Associated Roadway Items	Sq Ft	\$83
Total OC Replacement		\$250

	Units	Rate
Undercrossing (U/C) Widening	Sq Ft	\$232
Miscellaneous Associated Roadway Items	Sq Ft	\$0
Total Widening		\$348

	Units	Rate
Overcrossing (O/C) Widening	Sq Ft	\$232
Miscellaneous Associated Roadway Items	Sq Ft	\$116
Total UC Replacement		\$348

Note: "Misc. Associated Roadway Items" includes roadway reconstruction that is necessary to match new structure and includes items such as local street paving, grading, signal reconstruction, ramp termini reconstruction, etc. (Est. to be 50% of bridge)

*2010-2040 Measure I
Strategic Plan*

*San Bernardino Valley
Cost Estimates*

June 21, 2006

2010-2040 Measure I Strategic Plan

San Bernardino Valley

<i>Project Description</i>	<i>Updated Cost (Present)</i>	<i>Expenditure Plan</i>	<i>Delta (Expenditure Plan)</i>
Freeway:			
<i>I-10 Widening Project from I-15 to Riverside County Line</i>	<i>\$1,227,642,000</i>	<i>\$610,000,000</i>	<i>-\$617,642,000</i>
<i>I-15 Widening Project from Riverside County Line to I-215</i>	<i>\$479,798,000</i>	<i>\$180,000,000</i>	<i>-\$299,798,000</i>
<i>I-215 Widening Project from Riverside County Line to I-10</i>	<i>\$683,740,000</i>	<i>\$300,000,000</i>	<i>-\$383,740,000</i>
<i>I-215 Widening Project from SR-210 to I-15</i>	<i>\$169,994,000</i>	<i>\$120,000,000</i>	<i>-\$49,994,000</i>
<i>SR-210 Widening Project (Alt. 1) from I-215 to I-10</i>	<i>\$138,033,000</i>	<i>\$140,000,000</i>	<i>\$1,967,000</i>
<i>SR-210 Widening Project (Alt. 2) from I-215 to I-10</i>	<i>\$373,723,000</i>	<i>-</i>	<i>-</i>
<i>Carpool Connectors Various Locations (Study Only)</i>	<i>\$90,000,000</i>	<i>\$90,000,000</i>	<i>\$0</i>
Total Freeway Projects*	\$2,789,207,000	\$1,440,000,000	-\$1,349,207,000
<small>*SR-210 Widening Project (Alt. 2) not included in Freeway Project "Total"</small>			
Interchanges:			
Total Interchange Projects (Includes 38 Projects)	\$942,000,000	\$862,000,000	-\$80,000,000
Major Street:			
Total Major Street Projects	\$1,567,000,000	\$1,340,000,000	-\$227,000,000
Total San Bernardino Valley Projects	\$5,298,207,000	\$3,642,000,000	-\$1,656,207,000

**I-10 HOV Widening Project
from I-15 to Riverside County Line**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

Project Support	\$248,730,000
Right of Way	\$147,561,000
Utility Relocations	\$77,423,000
Construction Items	
Roadway Construction	\$392,416,000
Wall Construction	\$39,990,000
Structures Construction	\$116,294,500
Mobilization	\$54,871,000
Construction Contingency	\$82,306,000
Additional Construction Items	<u>\$68,000,000</u>
Total Construction Cost	<u>\$753,878,000</u>
Total Project Cost	<u>\$1,227,642,000</u>

**I-10 Widening
from I-15 to Riverside County Line**

Total Miles	31
Outside Lane (constructed over existing shoulder)	2
Outside Lane	0.5
Outside Shoulder	2
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$248,730,000
2	Right of Way			
	Right of Way (acre/mile)	0.5		\$23,293,710
	Residential (SF)			\$121,532,400
	Commercial (SF)			<u>\$2,734,479</u>
	Undeveloped land (SF)			<u>\$147,561,000</u>
	TOTAL Right of Way Cost			
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	15%	\$1,350,000	\$6,277,500
	High Density	85%	\$2,700,000	<u>\$71,145,000</u>
	TOTAL Utilities Cost			\$77,423,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	62	\$50,000	\$3,100,000
	Earthwork - Other lanes	15.5	\$465,000	\$7,207,500
	Earthwork - Shoulder	62	\$980,000	\$60,760,000
	Pavement - Lanes	77.5	\$573,000	\$44,407,500
	Pavement - Shoulder	62	\$477,000	<u>\$29,574,000</u>
	Subtotal - Outside Paving and Earthwork			\$145,049,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	124	\$58,000	\$7,192,000
	Pavement - Lanes	62	\$573,000	\$35,526,000
	Pavement - Shoulder	62	\$477,000	<u>\$29,574,000</u>
	Subtotal - Inside Paving			\$72,292,000
4c	Barrier			
	Center barrier per mile	31	\$500,000	\$15,500,000
	Other barrier per mile	31	\$160,000	<u>\$4,960,000</u>
	Subtotal - Barrier			\$20,460,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.35	\$535,000	\$11,609,500
	Ramp Mod. (ea. ramp)	122	\$100,000	<u>\$12,200,000</u>
	Subtotal Misc. Paving			\$23,809,500
	Subtotal Earthwork, Paving, and Barrier			\$261,610,500
4a	<i>Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs</i>			
	Removals	5%		\$13,080,525
	Front End Work	15%		\$39,241,575
	Drainage	15%		\$39,241,575
	Electrical	5%		\$13,080,525
	Miscellaneous	10%		<u>\$26,161,050</u>
	Subtotal Other Roadway Items			\$130,805,250
	TOTAL Roadway Construction Cost			\$392,416,000
5	<i>Wall Construction - Soundwalls and Retaining</i>			
	Retaining wall per mile	30%	\$3,000,000	\$27,900,000
	Soundwall per mile	30%	\$1,300,000	<u>\$12,090,000</u>
	TOTAL Wall Construction Cost			\$39,990,000
6	<i>Structures Construction</i>			
	<i>Includes replacements, widenings and allowance for associated street/ramp modifications</i>			
	O/C - Replacement (sf)	118,050	\$250	\$29,512,500
	U/C Widening (sf)	244,750	\$232	\$56,782,000
	R/R O/C Replacement (ea.)	1	\$30,000,000	<u>\$30,000,000</u>
7	TOTAL Structures Cost			\$116,294,500
	SUBTOTAL CONSTRUCTION COST			\$548,701,000
8	Mobilization	10%		\$54,871,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
9	Construction Contingency	15%		\$82,306,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
10	<i>Additional Potential Features and Items</i>			
	Significant Water Crossings	3	\$500,000	\$1,500,000
	Major Freeway/Freeway I/C	3	\$15,000,000	\$45,000,000
	Major Drainage Systems (ea.)	3	\$2,000,000	\$6,000,000
	Landscape (per mile)	31	\$500,000	<u>\$15,500,000</u>
	Subtotal Additional Features			\$68,000,000
11	TOTAL CONSTRUCTION COST			\$753,873,000
12	TOTAL PROJECT COST			<u>\$1,227,642,000</u>
	<i>Sum of Project Support, Right of Way, Utilities, and Construction Costs</i>			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: I-10 Widening
PROJECT LIMITS: I-15 to Riverside County Line (Haven to Riv Co Line)
PROJECT LENGTH (MI): 31
PROJECT SCOPE: Add 1 HOV in each direction

ROADWAY FACTORS:

OUTSIDE LANE	0	
INSIDE LANE	2	Per the project scope of adding 1 HOV lane in each direction from Haven Avenue to the San Bernardino-Riverside County
AUXILIARY	2	Assume 1 auxiliary lane on each side for entire length of corridor.
OUTSIDE SHOULDER	1	Assume half outside shoulder width of widening required along entire length of project (both sides)
RETAINING WALL	0.8	Retaining Wall estimate based on retaining wall locations shown in the PSR Reports.
SOUND WALL	0.5	Sound wall factor estimated from assuming 15-ft high wall and dividing it by the area assumed in the PSR Report (1) and assuming similar consistency with the 3 miles of freeway covered by PSR report (2).
RAMPS TOTAL	122	Ramp total includes all interchange ramps, all freeway to freeway connector ramps and the ramps associated with the two rest stops. Ramp total also includes the ramps located at County Line Rd interchange that are within San Bernardino County.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	25	Assumes there is approximately 30 feet available in the median and will require about 25 feet of outside widening.
BRIDGE WIDEN FACTOR (MULTI)	50	Assumes 40 feet widening to close gap between structures and about 10 feet of outside widening.
BRIDGE REPLACE LENGTH	250	Assumes 1 HOV, 3 mixed flow, 1 auxiliary, 1 HOV buffer, 2 standard shoulders and a 1.5:1 open abutment.
BRIDGE REPLACE WIDTH	VAR	

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.5	Estimated using PSR reports.
RESIDENTIAL	5%	Estimated approximately 1.5 miles of potential residential land affected based on 2004 General Plan and aerial photos on SANBAG GIS site.
COMMERCIAL	31%	Estimated approximately 25 miles of potential commercial land affected based on 2004 General Plan and aerial photos on SANBAG GIS site. Commercial category includes commercial, retail, industrial (all non-residential)
UNDEVELOPED LAND	15%	Estimated approximately 4.5 miles of potential bare land affected based on 2004 General Plan and aerial photos on SANBAG GIS site.
HIGH DENSITY UTILITIES	100%	Full project length assumed to be high density due to complexity (Fiber Optic line in Redlands area, and Transmission Tower in median near Edwanda.) and high density of development west of I-215.
LOW DENSITY UTILITIES	0%	

OTHER FACTORS:

FWY TO FWY INTERCHANGES	3	I-10/I-15, I-10/I-215, I-10/SR 30
MAJOR DRAINAGE FACILITIES	3	
MAJOR WATER CROSSINGS	3	Edwanda wash, Warm Creek, and Santa Ana River
RAILROAD OVERCROSSINGS	1	Slover Mountain Overpass
RAILROAD UNDERCROSSINGS	3	

GENERAL ASSUMPTIONS AND NOTES:

Assume sufficient right of way in median to accommodate most of widening with the exception of slight outside widening (approximately 5 feet on each side)..

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

Railroad directly adjacent to south side of freeway from Haven to ML Vernon

Frontage road from Ford to Webash on north side, Hampton Road to Live Oak both north and south side, and from Live Oak to the County Line on the north side. (substantial right of way requirements likely)

Overcrossings that are included in the Valley Interchange Project list from Expenditure Plan/Nexus Study are not included in the I-10 HOV Project estimate.

(From West to East) Median width from Haven to about 1200 ft before Day Cyn Channel is about 30 ft wide. From that point to the Kaiser Spur OH the median width varies between 35 and 80 ft. From Kaiser OH to about I-215 the median width is about 38 ft, however at each overcrossing interchange (exceptions are Cedar, Pepper, Rancho), the median narrows to about 15 ft this width continues from gore point to gore point. After I-215 to about Orange, the median is about 38 ft. From Orange to close to Yucaipa the median varies between 50-60 ft. After Yucaipa to the end of the project limits, the median is about 30 ft.

Topography gets hilly east of University in Redlands.

REFERENCE DOCUMENTS:

(1) DRAFT Project Study Report/Project Development Support 08-SBd-10-KP 13.20/53.3, 08-304-0C250K, In San Bernardino County on Interstate I-10 from Haven Avenue Overcrossing to Ford Street Undercrossing.

(2) DRAFT Project Study Report/Project Development Support 08-SBd-10-KP 53.3/53.1, 08-Riv-10-KP R0.0/10.3, 08-185-0A330K, In San Bernardino County on Interstate I-10 from Ford Street Undercrossing to San Bernardino/Riverside County Line to SR 90 in Riverside County.

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES: (West to East)

UNDERCROSSINGS (WIDEN)

ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	TOTAL WIDEN AREA (SQ FT)	NOTES
1	Day Canyon Channel	85	1	2,125	The NB I-15 from EB I-10 ramp merges at this location.
2	Etiwanda Wash (R/L)	50	2	2,500	The (L) bridge (looking East) includes a portion of the Etiwanda WB on-ramp. The wash is at a slight skew for all bridges. Steel bridge and not even between R and L?
3	Etiwanda Wash (S)	50	1	-	The (S) bridge includes a portion of the Etiwanda EB off-ramp. Widening at this location may not be required?
4	Valley Blvd Off ramp (L)	130	1	1,325	Interchange (partial)- 2 ramps
	Valley Blvd Off ramp (R)	225	1	2,313	
5	Etiwanda - San Sevaine Flood Control Channel	185	2	9,250	Separate EB on-ramp structure adjacent to channel crossing structures. Assumed not to require widening.
6	Kaiser Spur Overhead	25	1	325	Railroad
7	Colton Overhead (L)	250	1	3,125	Railroad. I-10 curved in this area. The R/L reference from looking East. Steel bridge
	Colton Overhead (R)	365	1	4,563	
8	La Cadena Dr Undercrossing	85	1	1,325	Interchange (partial) with 2 ramps.
9	9th Street Undercrossing	100	1	2,500	Interchange (partial) with 2 ramps.
10	Pavilion Spur Overhead	235	1	3,375	On a curve and is skewed to the fwy. Both the EB on-ramp and WB off-ramp are part of the overcrossing structure.
11	Warm Creek Undercrossing	410	2	20,500	Water crossing
12	Santa Ana River Undercrossing	360	3	30,200	Water crossing. The "G" structure is the EB I-10 to I-215 Connector. The PSR report shows the I-10/I-215 connector to be widened. Will assume 20 foot widening for this structure. Therefore the total widening is assumed to be 70 feet. The area calculation for this bridge is not automatic and should be adjusted manually.
13	Hunts Lane Undercrossing	150	1	3,750	Includes part of the WB I-10 to I-215 connector ramp.
14	Waterman Ave Undercrossing	185	1	4,125	Interchange with 7 ramps (2 ramps go directly to Hospitality Lane).
15	San Timoteo Creek Undercrossing	205	1	5,125	Average length used (range is from 180-225 feet). Channel is at a skew to the freeway.
16	Gage Canal Undercrossing	105	1	2,625	There is a structure in the PSR that appears to be the San Timoteo UC that is to be removed, but not sure how this will be done. There appears to be a Gage Canal UC per the Thomas Guide.
17	Tipecanoe Ave Undercrossing*	120	1	3,000	Interchange with 4 ramps.
18	Mountain View Av Undercrossing*	180	1	4,000	Interchange with 4 ramps.
19	West Redlands Overhead	365	1	9,125	Railroad and Mission Channel. Skew
20	California Street Undercrossing*	180	1	4,500	Interchange with 4 ramps.
21	Nevada Street Undercrossing	180	1	4,000	
22	Colton Ave-New York Ave Undercrossing	430	1	10,750	This structure over the intersection of Colton Ave and New York Ave. The freeway is at a skew of this location.
	Colton Ave-New York Ave Undercrossing (EB on-ramp)	840	1	12,800	Assume a 20 foot widening for this structure.
23	Texas Ave Undercrossing	185	1	4,625	
24	Eureka Street Undercrossing	185	1	4,125	Interchange (partial)

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

UNDERCROSSINGS (WIDEN) CONTINUED					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	TOTAL WIDEN AREA (SQ FT)	NOTES
25	Orange Street Undercrossing	210	1	5,250	Interchange (partial) total of 3 ramps (1 goes directly to Eureka). Gap closure between structures as part of Median Lane Addition Project.
26	Sixth Street Undercrossing	160	1	4,000	Interchange (partial) with 2 ramps. Gap closure between structures as part of Median Lane Addition Project.
27	Church Street Undercrossing	195	1	4,375	Gap closure between structures as part of Median Lane Addition Project.
28	Redlands Overhead	350	1	8,750	Railroad. Gap closure between structures as part of Median Lane Addition Project.
29	University Street Undercrossing *	185	1	4,625	Interchange (partial) with 2 ramps. Gap closure between structures as part of Median Lane Addition Project.
30	Citrus Avenue Undercrossing	275	1	6,375	Gap closure between structures as part of Median Lane Addition Project.
31	Cypress Ave Undercrossing	165	1	4,125	Interchange (partial) with 2 ramps. Gap closure between structures as part of Median Lane Addition Project.
32	Palm Ave Undercrossing	145	1	3,325	Gap closure between structures as part of Median Lane Addition Project.
33	Highland Ave Undercrossing	145	1	3,325	Gap closure between structures as part of Median Lane Addition Project.
34	Ford Street Undercrossing	150	1	3,750	Interchange (partial) with 2 ramps. Gap closure between structures as part of Median Lane Addition Project.
35	Redlands Blvd Undercrossing	215	1	5,375	Skew. Gap closure between structures as part of Median Lane Addition Project.
TOTAL WIDEN		3260	43	244,750	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.
 * Indicates on the Interchange project list per the Nexus Study and Expenditure Plan

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	Haven Ave Overcrossing	-	-	-	Assumed to accommodate widening. Two structures overcrossing freeway. Interchange with 6 ramps.
2	Milliken Avenue Overcrossing	-	-	-	Assumed to accommodate widening. Interchange with 4 ramps.
3	EB I-10 to NB I15 Connector	-	-	-	Assumed to accommodate widening.
4	NB I-15 to WB I-10 Connector	-	-	-	Assumed to accommodate widening.
5	I-15	-	-	-	Assumed to accommodate widening. Two structures, 1 each for SB and NB.
6	WB I-10 to SB I-15	-	-	-	Assumed to accommodate widening.
7	SB I-15 to EB I-10	-	-	-	Assumed to accommodate widening.
8	Elklands Overcrossing	90	120	46,800	Interchange with 6 ramps. Per the Major Street Project list, there is plans to widen the street from 4 to 6 lanes. Estimate replace width to be 6-12 ft lanes, 1 turn lane, and 35 feet additional width to account for sidewalk and barrier for a total width of 115. Also assume a 390 feet replace length to account for loop on off ramps.
9	Cherry Avenue Overcrossing*	-	-	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps
10	Citrus Avenue Overcrossing*	-	-	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps.
11	Sierra Avenue Overcrossing	-	-	-	Interchange with 4 ramps. Assumed to accommodate widening.
12	Cedar Avenue Overcrossing*	-	-	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps.
13	Riverside Avenue Overcrossing*	-	-	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps
14	Pepper Avenue Overcrossing*	40	35	-	Interchange with 4 ramps.. Major Street Projects states that Pepper will be widened from 2 lanes to 4 lanes in each direction. Assume total widen to be 35 feet.
15	Slover Mountain Overpass	35	35	3,750	Railroad
16	Rancho Avenue Overcrossing	75	75	18,750	Interchange with 4 ramps.. Slight skew. There is a railroad portion to the bridge. Assumed that the replacement will not include the railroad portion of the bridge.
17	Mt Vernon Overcrossing*	35	35	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps.. Bridge is curved and skewed and has a loop ramp. assume replace length of 325 feet. Although Major Street Project plans to widen Mt Vernon from La Cadena to I-10 from 4 to 3 lanes, will assume existing width across I-10.
18	EB I-10 to NB I-215	-	-	-	Assumed to accommodate widening.
19	SB I-215 to EB I-10	-	-	-	Assumed to accommodate widening.
20	I-215	-	-	-	Assumed to accommodate widening.
21	WB I-10 to SB I-215	-	-	-	Assumed to accommodate widening.
22	Richardson Street Overcrossing	45	45	11,250	
23	Alabama Street Overcrossing*	60	60	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps.. Major Street Project that states will widen from 2 to 4 lanes, but can't verify at this time that it will include the area over I-10. Will assume for this calculation that existing width will apply to the replacement.
24	EB I-10 to NB SR 30	-	-	-	Assumed to accommodate widening.
25	SB SR 30 to EB I-10	-	-	-	Assumed to accommodate widening.
26	Tennessee St Overcrossing	85	-	-	Assumed to accommodate widening. Interchange with 3 ramps.
27	Webbsh Ave Overcrossing*	40	40	-	Assumed to be completed prior to HOV project. Interchange (partial) with 2 ramps.
28	Yuccaipa Blvd Overcrossing	65	65	21,250	Interchange with 4 ramps.

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

OVERCROSSINGS (REPLACE) CONTINUED					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
29	18th Street Overcrossing	45	45	11,250	
30	Live Oak Canyon Overcrossing*	55	55	-	Assumed to be completed prior to HOV project. Interchange with 4 ramps.
31	Wildwood Creek Overcrossing (Channel)	-	-	-	Appears to be a culvert only (not bridge structure). Creek has very steep side slopes.
TOTAL REPLACE		690	700	118,350	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.

The interchange projects that are outside the scope of the PSR are assumed to be complete for the project.

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Assume that Overcrossings will be replaced at same width as existing (unless otherwise known to be widened at a future date).

**I-15 Widening Project
from Riverside County Line to I-215**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>		\$103,029,000
<i>Right of Way</i>		\$34,136,000
<i>Utility Relocations</i>		\$30,375,000
<i>Construction Items</i>		
<i>Roadway Construction</i>	\$112,799,000	
<i>Wall Construction</i>	\$23,250,000	
<i>Structures Construction</i>	\$82,916,800	
<i>Mobilization</i>	\$21,897,000	
<i>Construction Contingency</i>	\$32,845,000	
<i>Additional Construction Items</i>	<u>\$38,500,000</u>	
<i>Total Construction Cost</i>		<u>\$312,208,000</u>
<i>Total Project Cost</i>		<u><u>\$479,798,000</u></u>

I-15 Widening
from Riverside County Line to I-215

Total Miles	15
Outside Lane (constructed over existing shoulder)	1
Outside Lane	0
Outside Shoulder	1
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$103,029,000
2	Right of Way			
	Right of Way (acre/mile)	0.3		
	Residential (SF)			\$2,254,230
	Commercial (SF)			\$30,873,150
	Undeveloped land (SF)			<u>\$1,058,508</u>
	TOTAL Right of Way Cost			\$34,186,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	50%	\$1,350,000	\$10,125,000
	High Density	50%	\$2,700,000	<u>\$20,250,000</u>
	TOTAL Utilities Cost			\$30,375,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	15	\$50,000	\$750,000
	Earthwork - Other lanes	0	\$465,000	\$0
	Earthwork - Shoulder	15	\$980,000	\$14,700,000
	Pavement - Lanes	15	\$573,000	\$8,595,000
	Pavement - Shoulder	15	\$477,000	<u>\$7,155,000</u>
	Subtotal - Outside Paving and Earthwork			\$31,200,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	60	\$58,000	\$3,480,000
	Pavement - Lanes	30	\$573,000	\$17,190,000
	Pavement - Shoulder	30	\$477,000	<u>\$14,310,000</u>
	Subtotal - Inside Paving			\$34,980,000
4c	Barrier			
	Center barrier per mile	15	\$500,000	\$7,500,000
	Other barrier per mile	15	\$160,000	<u>\$2,400,000</u>
	Subtotal - Barrier			\$9,900,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	28	\$100,000	<u>\$2,800,000</u>
	Subtotal Misc. Paving			<u>\$2,800,000</u>
	Subtotal Earthwork, Paving, and Barrier			\$78,880,000
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$3,944,000
	Front End Work	15%		\$11,832,000
	Drainage	8%		\$6,310,400
	Electrical	5%		\$3,944,000
	Miscellaneous	10%		<u>\$7,888,000</u>
	Subtotal Other Roadway Items			<u>\$33,918,400</u>
	TOTAL Roadway Construction Cost			\$112,799,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	50%	\$1,800,000	\$13,500,000
	Soundwall per mile	50%	\$1,300,000	<u>\$9,750,000</u>
	TOTAL Wall Construction Cost			<u>\$23,250,000</u>
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	357,400	\$232	\$82,916,800
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			<u>\$82,916,800</u>
	SUBTOTAL CONSTRUCTION COST			\$218,966,000
8	Mobilization	10%		\$21,897,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$32,845,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	2	\$500,000	\$1,000,000
	Major Freeway/Freeway I/C	2	\$15,000,000	\$30,000,000
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	15	\$500,000	<u>\$7,500,000</u>
	Subtotal Additional Features			<u>\$38,500,000</u>
11	TOTAL CONSTRUCTION COST			\$312,208,000
12	TOTAL PROJECT COST			<u><u>\$479,798,000</u></u>
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: I-15 Widening
 PROJECT LIMITS: Riverside County Line to I-215
 PROJECT LENGTH: 15 miles
 PROJECT SCOPE: Add 1 HOV in each direction (per 2004 RTP)

ROADWAY FACTORS:

OUTSIDE LANE	0	
INSIDE LANE	2	Add 1 HOV in each direction
AUXILIARY	1	
OUTSIDE SHOULDER	1	
RETAINING WALL	0.5	
SOUND WALL	0.3	Measured "Residential" areas based on 2004 General Plan (Approximately 9.2 miles total).
RAMPS TOTAL	45	Includes all freeway to freeway ramps.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-	
BRIDGE WIDEN FACTOR (MULTI)	50	Assume widen to accommodate 2-HOV, 2-buffer, 2-shoulder, and barrier.
BRIDGE REPLACE LENGTH	-	Assume all overcrossings can accommodate widening.
BRIDGE REPLACE WIDTH	-	

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.25	
RESIDENTIAL	30%	Approximately 9.2 miles of residential over 30 miles of project. (See Sound wall explanation)
COMMERCIAL	32%	
UNDEVELOPED LAND	3%	Approximately 2.5 miles of non-develop land over 30 miles of project. (See Sound wall explanation)
HIGH DENSITY UTILITIES	50%	
LOW DENSITY UTILITIES	50%	

OTHER FACTORS:

FWY TO FWY INTERCHANGES	2	Devore Interchange (I-15/I-215) not included in project.
MAJOR DRAINAGE FACILITIES	0	
MAJOR WATER CROSSINGS	2	Lytle Creek and Cajon Creek
RAILROAD OVERCROSSINGS	0	
RAILROAD UNDERCROSSINGS	3	

GENERAL ASSUMPTIONS AND NOTES:

Assume sufficient right of way in median to accommodate most of widening with the exception of slight outside widening (approximately 5 feet on each side).

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

Median (ETW to ETW) is approximately 35 feet wide from the county line to just north of Jurupa. From just north of Jurupa to just north of Foothill the median is approximately 40 to 45 feet wide. From just north of Foothill to just north of the Cajon Creek Crossing the median is varies between 65 and 70 feet with some areas as wide as 75 feet.

Topography gets hilly (adjacent to I-15) north of the Lytle Creek crossing San Bernardino National Forest (west side) and Glen Helen Regional Park (east side).

Per PB's comprehensive corridor study, the existing I-15 between SR 60 and US-395 is an 8 lane facility with a 10 to 15 ft median and 4-8 ft median shoulder, 4-12 ft travel lanes (in each direction) and an 8 to 12 ft outside shoulder. There is approximately 12 to 24 ft of additional vacant right of way (outside).

Per PB's report, the following auxiliary lanes are existing: NORTHBOUND-Jurupa on-ramps to I-10 off-ramps, I-10 on-ramps to 4th off ramp, Baseline on-ramp to SR 210 off-ramp SOUTHBOUND- Summit on-ramp to SR 210 off ramps, SR 210 on-ramps to Baseline off-ramps, 4th Street on-ramp to I-10 off ramps, I-10 on-ramps to Jurupa off-ramps.

Per PB's report, the HOV alternative would result in a right of way impact of about 2 1/2 acres.

Potential seismic considerations in Devore IC vicinity.

REFERENCE DOCUMENTS:

I-15 Comprehensive Corridor Study, Final Report. Parsons Brinckerhoff, December 20, 2005.

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES: (South to North)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (FT)	NOTES
1	Airport Undercrossing	180	2	9,000	WB I-10 to SB I-215 ramp part of L structure (looking north). Approximately 35 foot gap between structures.
2	Railroad Undercrossing	195	2	9,750	Railroad. Approximately 35 foot gap between structures.
3	I-10 Undercrossing	250	2	12,500	Approximately 35 foot gap between structures.
4	Ontario Mills Parkway Undercrossing	180	2	8,000	Approximately 35 foot gap between structures. I-15/I-10 ramps portion of structures.
5	4th Street Undercrossing	190	2	9,500	Interchange with 4 ramps are part of the overcrossing structure. Approximately 30 foot gap between structures.
6	6th Street Undercrossing	185	2	8,250	Approximately 35 foot gap between structures.
7	7 Undercrossing	135	2	6,750	Approximately 30 foot gap between structures.
8	BNSF/SCRRRA Undercrossing	180	2	9,000	Railroad. Approximately 30 foot gap between structures.
9	Day Creek Crossing	320	2	16,000	Approximately 30 foot gap between structures. Skew.
10	Arrow Undercrossing*	210	2	10,500	Approximately 30 foot gap between structures. Skew. Future interchange location.
11	Foothill Undercrossing	290	2	14,500	Interchange with 6 ramps. Approximately 30 foot gap between structures.
12	Edwanda/Church/Miller St Undercrossing	320	2	16,000	Bridges over intersection. Approximately 55 foot gap between structures.
13	Baseline/East Ave Undercrossing (L)*	515	1	12,375	Bridges over intersection. Bridge part of separate interchange project. Interchange with 4 ramps. Approximately 50 foot gap between structures. Skew
	Baseline/East Ave Undercrossing (R)*	840	1	16,000	
14	7 Undercrossing	170	2	8,500	Approximately 70 foot gap between structures.
15	Victoria Street Undercrossing	180	2	9,000	Approximately 70 foot gap between structures. Skew
16	Edwanda-Sevaine Flood Control Channel Undercrossing	135	2	6,750	Approximately 45 foot gap between structures.
17	Cherry Undercrossing	270	2	13,500	Approximately 55 foot gap between structures. Skew
18	Sierra Undercrossing*	185	2	9,250	Bridge part of separate interchange project. Interchange has 4 ramps. Approximately 50 foot gap between structures.
19	Lytle Creek Undercrossing	2,025	2	101,250	Water crossing. Approximately 50 foot gap between structures.
20	Wash UC?	-	-	-	Looks like there could be a crossing here, but hard to tell. Likely a culvert
21	Glen Helen Pkwy Undercrossing	150	2	7,500	Interchange with 4 ramps. Approximately 35 foot gap between structures.
22	Glen Helen Rd Undercrossing	205	2	10,250	Approximately 35 foot gap between structures. Skew.
23	BNSF/UP Undercrossing	280	2	-	Railroad. Approximately 80 foot gap between structures. Structure reconfiguration part of Devore IC.
24	Cajon Creek Wash Bridge (R)	575	1	-	Water crossing. Ramps part of structure. There is a bend in the structure. Approximately 80 foot gap between structures. Structure reconfiguration part of Devore IC.
	Cajon Creek Wash Bridge (L)	800	1	-	
TOTAL WIDEN		8,325	46	324,325	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

**I-215 Bi-County Widening Project
from Riverside County Line to I-10**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	\$93,295,000
<i>Right of Way</i>	\$294,234,000
<i>Utility Relocations</i>	\$13,500,000
<i>Construction Items</i>	
<i>Roadway Construction</i>	\$127,275,000
<i>Wall Construction</i>	\$31,625,000
<i>Structures Construction</i>	\$49,667,200
<i>Mobilization</i>	\$20,857,000
<i>Construction Contingency</i>	\$31,286,000
<i>Additional Construction Items</i>	<u>\$22,000,000</u>
<i>Total Construction Cost</i>	<u>\$282,711,000</u>
<i>Total Project Cost</i>	<u>\$683,740,000</u>

**I-215 Widening
from Riverside County Line to I-10**

Total Miles	5
Outside Lane constructed over existing shoulder	2
Outside Lane	6
Outside Shoulder	2
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PAVED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$93,295,000
2	Right of Way			
	Right of Way (acre/mile)	7.2		\$18,033,840
	Residential (SF)			\$268,155,360
	Commercial (SF)			<u>\$8,044,661</u>
	Undeveloped land (SF)			\$294,234,000
	TOTAL Right of Way Cost			
3	Utility Relocations			
	Utilities (cost per mile)			\$0
	Low Density	0%	\$1,350,000	
	High Density	100%	\$2,700,000	<u>\$13,500,000</u>
	TOTAL Utilities Cost			\$13,500,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	10	\$50,000	\$500,000
	Earthwork - Other lanes	30	\$465,000	\$13,950,000
	Earthwork - Shoulder	10	\$1,495,000	\$14,950,000
	Pavement - Lanes	40	\$573,000	\$22,920,000
	Pavement - Shoulder	10	\$477,000	<u>\$4,770,000</u>
	Subtotal - Outside Paving and Earthwork			\$57,090,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	20	\$58,000	\$1,160,000
	Pavement - Lanes	10	\$573,000	\$5,730,000
	Pavement - Shoulder	10	\$477,000	<u>\$4,770,000</u>
	Subtotal - Inside Paving			\$11,660,000
4c	Barrier			
	Center barrier per mile	5	\$500,000	\$2,500,000
	Other barrier per mile	5	\$160,000	<u>\$800,000</u>
	Subtotal - Barrier			\$3,300,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

2010-2040 Measure I Strategic Plan
SB Valley Subarea - Freeways

	Non-Freeway Road/Street	2.00	\$535,000	\$10,700,000
	Ramp Mod. (ea. ramp)	21	\$100,000	<u>\$2,100,000</u>
	Subtotal Misc. Paving			\$12,800,000
	Subtotal Earthwork, Paving, and Barrier			\$84,850,000
4e	<i>Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs</i>			
	Removals	5%		\$4,242,500
	Front End Work	15%		\$12,727,500
	Drainage	15%		\$12,727,500
	Electrical	5%		\$4,242,500
	Miscellaneous	10%		<u>\$8,485,000</u>
	Subtotal Other Roadway Items			\$42,425,000
	TOTAL Roadway Construction Cost			\$127,275,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	200%	\$3,000,000	\$30,000,000
	Soundwall per mile	25%	\$1,300,000	<u>\$1,625,000</u>
	TOTAL Wall Construction Cost			\$31,625,000
6	Structures Construction			
	<i>Includes replacements, widenings and allowance for associated street/ramp modifications</i>			
	O/C - Replacement (sf)	139,300	\$250	\$34,825,000
	U/C Widening (sf)	63,975	\$232	\$14,842,200
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$49,667,200
	SUBTOTAL CONSTRUCTION COST			\$208,568,000
8	Mobilization	10%		\$20,857,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
9	Construction Contingency	15%		\$31,286,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
10	Additional Potential Features and Items			
	Significant Water Crossings	1	\$500,000	\$500,000
	Major Freeway/Freeway I/C	1	\$15,000,000	\$15,000,000
	Major Drainage Systems (ea.)	2	\$2,000,000	\$4,000,000
	Landscape (per mile)	5	\$500,000	<u>\$2,500,000</u>
	Subtotal Additional Features			\$22,000,000
11	TOTAL CONSTRUCTION COST			\$282,711,000
12	TOTAL PROJECT COST			\$683,740,000
	<i>Sum of Project Support, Right of Way, Utilities, and Construction Costs</i>			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: I-215 Widening (I-215 Bi-County Project)
 PROJECT LIMITS: Riverside County Line to I-10 (Riv Co Line to Orange Show Rd)
 PROJECT LENGTH: 5 miles
 PROJECT SCOPE: Add 1 mixed flow lane and 1 HOV in each direction

ROADWAY FACTORS:

OUTSIDE LANE	2	Per the scope of the current PR/ED effort and consistent with the Route Concept Report, add 1 mixed flow in each direction. (Does not account for total replacement of existing pavement.
INSIDE LANE	2	Per the scope of the current PR/ED effort and consistent with the Route Concept Report add 1 HOV in each direction.
AUXILIARY	2	Assume 1 auxiliary lane on each side for entire length of corridor.
OUTSIDE SHOULDER	1	Assume half outside shoulder width of widening required along entire length of project (both sides)
RETAINING WALL	2	Assume retaining walls will be required over most of the length of the project due to the proximity of businesses to freeway and due to topography (Grand Terrace area).
SOUND WALL	0.25	Assumes approximately 1 mile of sound wall needed total for a total project length of 10 miles.
RAMPS TOTAL	21	Includes I-215/I-10 ramps.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-	
BRIDGE WIDEN FACTOR (MULTI)	-	Values estimated from LAN's preliminary engineering used for each bridge replacement/widen.
BRIDGE REPLACE LENGTH	-	
BRIDGE REPLACE WIDTH	-	

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	7.2	Assumes approximately 80 foot take over a 5 mile distance. This mostly accounts for pushing out area with existing frontage road.
RESIDENTIAL	8%	
COMMERCIAL	94%	
UNDEVELOPED LAND	1%	
HIGH DENSITY UTILITIES	100%	Assumed to be high density due to the high density of development adjacent to the corridor.
LOW DENSITY UTILITIES	0%	

OTHER FACTORS:

FWY TO FWY INTERCHANGES	1	I-215/I-10
MAJOR DRAINAGE FACILITIES	2	
MAJOR WATER CROSSINGS	1	Santa Ana River
RAILROAD OVERCROSSINGS	2	BNSF and UPRR Lines in Grand Terrace/Colton Area
RAILROAD UNDERCROSSINGS	1	UPRR

GENERAL ASSUMPTIONS AND NOTES:

Assume ADL soil can be reused onsite
 Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.
 Assumes that the Iowa/La Cadena interchange stays at existing location. This worksheet does not assume a new structure at Main St.
 All bridge overcrossings will require replacement due to vertical and horizontal clearance. This will require either lowering of freeway, elevating the local roads, or a combination of both.
 The estimated dimensions for bridge widening/replacement assumes full standard geometry for the freeway and for the overcrossing streets.
 Assume that all pavement for freeway gets replaced during this project.

REFERENCE DOCUMENTS:

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES: (North to South)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	WIDEN (FT)	WIDEN AREA (SQ FT)	NOTES
1	Fairway Dr/Santa Ana River Undercrossing (R)	710	5	3,350	Water Crossing. Bridge widen portion is average value.
	Fairway Dr/Santa Ana River Undercrossing (L)	760	10	7,800	
2	I-10 Undercrossing (R)	260	20	5,200	
	I-10 Undercrossing (L)	260	30	7,800	
3	Steel Road/UPRR/Cooley Road Undercrossing (R)	750	20	15,000	Railroad.
	Steel Road/UPRR/Cooley Road Undercrossing (L)	750	30	22,500	
4	Reche Canyon Creek UC (Channel Crossing)	-	-	-	Culvert?
5	SB I-215 to WB I-10 Connector	775	3	2,325	Bridge widen portion is average value.
TOTAL WIDEN		4,265	118	63,975	

Assumptions/Notes:

R/L Designation looking North.

Bridge dimensions from LANs estimates based on preliminary geometry, values rounded to the nearest 5 foot increment.

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	ASSUMED BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE LENGTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	Orange Show Road Overcrossing			-	Assume accommodates widening, interchange with 5 ramps.
2	East 10 to N 215 Connector Overcrossing			-	Assume accommodates widening
3	South 215 to East 10 Connector Overcrossing			-	Assume accommodates widening
4	West 10 to South 215 Connector Overcrossing			-	Assume accommodates widening
5	Washington/Mt. Vernon Overcrossing	130	285	34,450	Interchange with 5 ramps.
6	Newport Ave Overcrossing	85	200	13,000	Assume Newport is 35 feet wide Skew
7	Barton Rd Overcrossing	130	290	37,700	Interchange with 4 ramps. Skew
8	UP Overcrossing	25	310	7,750	Railroad. Steel Structure. Skew
9	BNSF Overcrossing	40	380	15,200	Railroad. Steel Structure. Skew. Replacement length for this bridge is estimates at 380 feet, which is used for calculation (not automatic area calc).
10	Iowa/La Cadena Overcrossing	130	240	31,200	Interchange with 4 ramps. Skew
TOTAL REPLACE		520	1,385	139,300	

Assumptions/Notes:

All overcrossings will need to be replaced with the exception of Orange Show Road and the I-10/I-215 connectors.

Assumed bridges have closed end abutments.

Bridge dimensions from LANs estimates based on preliminary geometry, values rounded to the nearest 5 foot increment.

**I-215 Northern Widening Project
from SR-210 to I-15**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	\$28,830,000
<i>Right of Way</i>	\$43,003,000
<i>Utility Relocations</i>	\$10,800,000
<i>Construction Items</i>	
<i>Roadway Construction</i>	\$45,047,000
<i>Wall Construction</i>	\$14,600,000
<i>Structures Construction</i>	\$5,440,400
<i>Mobilization</i>	\$6,509,000
<i>Construction Contingency</i>	\$9,764,000
<i>Additional Construction Items</i>	<u>\$6,000,000</u>
<i>Total Construction Cost</i>	<u>\$87,361,000</u>
<i>Total Project Cost</i>	<u><u>\$169,994,000</u></u>

**I-215 Widening
from SR-30/210 to I-15**

Assumes AC Pavement

Total Miles	8
Outside Lane constructed over existing shoulder	0.5
Outside Lane	0
Outside Shoulder	1
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$28,330,000
2	Right of Way			
	Right of Way (acre/mile)	4		\$16,030,080
	Residential (SF)			\$6,272,640
	Commercial (SF)			<u>\$20,699,712</u>
	Undeveloped land (SF)			<u>\$43,003,000</u>
	TOTAL Right of Way Cost			
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	100%	\$1,350,000	\$10,800,000
	High Density	0%	\$2,700,000	<u>\$0</u>
	TOTAL Utilities Cost			\$10,800,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	4	\$50,000	\$200,000
	Earthwork - Other lanes	0	\$465,000	\$0
	Earthwork - Shoulder	8	\$980,000	\$7,840,000
	Pavement - Lanes	4	\$357,000	\$1,428,000
	Pavement - Shoulder	8	\$297,000	<u>\$2,376,000</u>
	Subtotal - Outside Paving and Earthwork			\$11,844,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	32	\$58,000	\$1,856,000
	Pavement - Lanes	16	\$357,000	\$5,712,000
	Pavement - Shoulder	16	\$297,000	<u>\$4,752,000</u>
	Subtotal - Inside Paving			\$12,320,000
4c	Barrier			
	Center barrier per mile	8	\$500,000	\$4,000,000
	Other barrier per mile	8	\$160,000	<u>\$1,280,000</u>
	Subtotal - Barrier			\$5,280,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	12	\$100,000	\$1,200,000
	Subtotal Misc. Paving			\$1,200,000
	Subtotal Earthwork, Paving, and Barrier			\$30,644,000
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$1,532,200
	Front End Work	15%		\$4,596,600
	Drainage	12%		\$3,677,280
	Electrical	5%		\$1,532,200
	Miscellaneous	10%		\$3,064,400
	Subtotal Other Roadway Items			\$14,402,680
	TOTAL Roadway Construction Cost			\$45,047,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	50%	\$3,000,000	\$12,000,000
	Soundwall per mile	25%	\$1,300,000	\$2,600,000
	TOTAL Wall Construction Cost			\$14,600,000
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	23,450	\$232	\$5,440,400
	R/R O/C Replacement (ea.)	0	\$3,000,000	\$0
7	TOTAL Structures Cost			\$5,440,400
	SUBTOTAL CONSTRUCTION COST			\$65,083,000
8	Mobilization	10%		\$6,509,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$9,764,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	0	\$500,000	\$0
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	1	\$2,000,000	\$2,000,000
	Landscape (per mile)	8	\$500,000	\$4,000,000
	Subtotal Additional Features			\$6,000,000
11	TOTAL CONSTRUCTION COST			\$87,361,000
12	TOTAL PROJECT COST			\$169,994,000
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: I-215 Widening
 PROJECT LIMITS: SR30/210 to I-15
 PROJECT LENGTH: 3 miles
 PROJECT SCOPE: Add 1 HOV each direction

ROADWAY FACTORS:

OUTSIDE LANE	0	
INSIDE LANE	2	
AUXILIARY	0.25	
OUTSIDE SHOULDER	1	
RETAINING WALL	0.5	
SOUND WALL	0.25	Based on residences located close to freeway
RAMPS TOTAL	14	

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-	
BRIDGE WIDEN FACTOR (MULTI)	30	Assumes 40 feet widening to close gap between structures and about 10 feet of outside widening.
BRIDGE REPLACE LENGTH	-	Assume existing overcrossings can accommodate an additional lane.
BRIDGE REPLACE WIDTH	-	

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	4	Majority of right of way impacts from Little League Drive and north to end of project limits. There is a major drainage on the east side and an access road that extends approximately 3 miles. Assuming 100 feet needed for extra lane, shoulder, and 4:1 slopes.
RESIDENTIAL	50%	Undeveloped land north of Little League drive is mostly zoned residential per 2004 General Plan, will assume residential for right of way estimation purposes.
COMMERCIAL	35%	
UNDEVELOPED LAND	15%	
HIGH DENSITY UTILITIES	0%	
LOW DENSITY UTILITIES	100%	Majority of project area is vacant or low density.

OTHER FACTORS:

PWY TO PWY INTERCHANGES	1	Excludes the I-215/I-15 interchange
MAJOR DRAINAGE FACILITIES	1	
MAJOR WATER CROSSINGS	0	
RAILROAD OVERCROSSINGS	0	
RAILROAD UNDERCROSSINGS	0	

GENERAL ASSUMPTIONS AND NOTES:

Assume sufficient right of way in median to accommodate most of widening with the exception of slight outside widening (approximately 5 feet on each side).

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

Existing pavement section is asphalt concrete, assume existing pavement will remain. Assume added lanes will also be asphalt concrete.

Overcrossings that are included in the Valley Interchange Project list from Expenditure Plan/Nexus Study are not included in the I-10 HOV Project estimate.

Assume pavement will be asphalt concrete to match existing.

REFERENCE DOCUMENTS:

SR 210 Segment 11 Contract 3 plans

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES: (North to South)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (SQ FT)	NOTES
1	North Palm Undercrossing*	150	2	7,500	Interchange with 4 ramps
2	Cable Creek Channel Undercrossing	147	2	7,350	
3	Devil Creek Diversion Undercrossing	32	2	3,100	
4	University Parkway Undercrossing*	110	2	5,500	Interchange with 4 ramps
5	Golf Cart Undercrossing?	0	0	0	Assume no change
TOTAL WIDEN				23,450	

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	UNIQUE INFORMATION
1	Glen Helen Pkwy/Devore Rd Overcrossing*	-	-	-	Interchange with 4 ramps.
2	N. Little League Overcrossing	-	-	-	
TOTAL REPLACE				0	

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Overcrossings assumed to accommodate widening.

**SR-210 Widening Project (Alt. 1)
from I-215 to I-10**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	\$32,311,000
<i>Right of Way</i>	\$1,060,000
<i>Utility Relocations</i>	\$6,750,000
<i>Construction Items</i>	
<i>Roadway Construction</i>	\$26,112,000
<i>Wall Construction</i>	\$17,325,000
<i>Structures Construction</i>	\$33,292,000
<i>Mobilization</i>	\$7,673,000
<i>Construction Contingency</i>	\$11,510,000
<i>Additional Construction Items</i>	<u>\$2,000,000</u>
<i>Total Construction Cost</i>	<u>\$97,912,000</u>
<i>Total Project Cost</i>	<u>\$138,033,000</u>

**SR-30/210 Widening (Alternative 1)
from I-215 to I-10**

Construct one inside lane and shoulder
each direction where needed - about 5 miles.

Total Miles	5
Outside Lane constructed over existing shoulder	0
Outside Lane	0
Outside Shoulder	0
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$32,311,000
2	Right of Way			
	Right of Way (acre/mile)	0.05		
	Residential (SF)			\$500,940
	Commercial (SF)			\$490,050
	Undeveloped land (SF)			\$68,607
	TOTAL Right of Way Cost			\$1,060,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	100%	\$1,350,000	\$6,750,000
	High Density	0%	\$2,700,000	\$0
	TOTAL Utilities Cost			\$6,750,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	0	\$50,000	\$0
	Earthwork - Other lanes	0	\$465,000	\$0
	Earthwork - Shoulder	0	\$1,495,000	\$0
	Pavement - Lanes	0	\$573,000	\$0
	Pavement - Shoulder	0	\$477,000	\$0
	Subtotal - Outside Paving and Earthwork			\$0
4b	Paving and Earthwork - Inside Widening			
	Earthwork	20	\$58,000	\$1,160,000
	Pavement - Lanes	10	\$573,000	\$5,730,000
	Pavement - Shoulder	10	\$477,000	\$4,770,000
	Subtotal - Inside Paving			\$11,660,000
4c	Barrier			
	Center barrier per mile	10	\$500,000	\$5,000,000
	Other barrier per mile	10	\$160,000	\$1,600,000
	Subtotal - Barrier			\$6,600,000
	Adjust mileage to account for entire 10 mile reach			
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	0	\$100,000	\$0
	Subtotal Misc. Paving			\$0
	Subtotal Earthwork, Paving, and Barrier			\$18,260,000
4e	<i>Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs</i>			
	Removals	5%		\$913,000
	Front End Work	15%		\$2,739,000
	Drainage	8%		\$1,460,800
	Electrical	5%		\$913,000
	Miscellaneous	10%		<u>\$1,826,000</u>
	Subtotal Other Roadway Items			\$7,851,800
	TOTAL Roadway Construction Cost			\$26,112,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	25%	\$1,900,000	\$2,375,000
	Soundwall per mile	230%	\$1,300,000	<u>\$14,950,000</u>
	TOTAL Wall Construction Cost			\$17,325,000
6	Structures Construction			
	<i>Includes replacements, widenings and allowance for associated street/ramp modifications</i>			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	143,500	\$232	\$33,292,000
	R/R O/C Replacement (ea.)	0	\$3,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$33,292,000
	SUBTOTAL CONSTRUCTION COST			\$76,729,000
8	Mobilization	10%		\$7,673,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
9	Construction Contingency	15%		\$11,510,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
10	Additional Potential Features and Items			
	Significant Water Crossings	2	\$1,000,000	\$2,000,000
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	0	\$500,000	<u>\$0</u>
	Subtotal Additional Features			\$2,000,000
11	TOTAL CONSTRUCTION COST			\$97,912,000
12	TOTAL PROJECT COST			<u>\$138,033,000</u>
	<i>Sum of Project Support, Right of Way, Utilities, and Construction Costs</i>			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: SR 210/30 Widening
PROJECT LIMITS: Highland Ave to San Bernardino
PROJECT LENGTH: 5 miles
PROJECT SCOPE: Add 1 mixed flow in each direction and widen undercrossings (per 2004 RTP). The scope is further assumed to mean adding one mixed flow in each direction to match up to the areas that are already 3 lanes in each direction.

ROADWAY FACTORS:

OUTSIDE LANE	0	
INSIDE LANE	2	Assume 1 lane in each direction to fill gap to make 3 lanes in each direction.
AUXILIARY	0	
OUTSIDE SHOULDER	0	
RETAINING WALL	0.25	
SOUND WALL	2.3	Project area predominantly residential. Assume wall on both sides of freeway for a distance of about 3 1/2 miles.
RAMPS TOTAL	10	

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-	
BRIDGE WIDEN FACTOR (MULTI)	50	
BRIDGE REPLACE LENGTH	-	Assumed that all overcrossings can accommodate widening.
BRIDGE REPLACE WIDTH	-	

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.05	Assumed that addition of a lane can be mostly accommodated within existing right of way.
RESIDENTIAL	72%	The remainder of the project area (minus commercial and undeveloped land) per aerials and 2004 General Plan.
COMMERCIAL	20%	Approximately 4 miles out of a total 20 project miles are commercial per the 2004 General Plan.
UNDEVELOPED LAND	9%	Approximately 1.7 miles out of a total 20 project miles are undeveloped. This area is primarily around the Santa Ana River/City Creek crossings.
HIGH DENSITY UTILITIES	0%	
LOW DENSITY UTILITIES	100%	Assumed to be low density utilities because primarily residential

OTHER FACTORS:

FWY TO FWY INTERCHANGES	1	
MAJOR DRAINAGE FACILITIES	0	
MAJOR WATER CROSSINGS	2	There are three bridges crossing the Santa Ana River and 1 bridge crossing at City Creek.
RAILROAD OVERCROSSINGS	0	
RAILROAD UNDERCROSSINGS	0	

GENERAL ASSUMPTIONS AND NOTES:

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

(From East to West) From I-10 to City Creek, freeway is elevated, from City Creek to Highland the freeway is depressed, Highland to project limits, freeway is elevated.

From I-215 to just east of H street, SR 30 is only 2 lanes in each direction. SR 210, Segment 11 Mainline will build a median lane and re-stripe (from east of Miramonte Dr) in each direction to match up to the 3 lanes in each direction. The 3 lanes in each direction is from I-259 to Highland Ave interchange after which it drops to two lanes in each direction until around San Bernardino IC near the SR 304-10 IC where it increase to 3 in each direction.

The median width (herein defined as ETW to ETW) from I-215 (just east of Miramonte) to I-259 will be 55 feet per the SR 210 Segment 11 Mainline plans. The median width from I-259 to Highland Ave Undercrossing is between 50 and 55 ft. The median from Highland to Victoria varies between 60 and 70 feet (in some areas as much as 74 feet). From Victoria to the 30/330 IC the median gets as wide as about 80 feet. From SR 300 to about City Creek the median is approximately 75 ft. From City Creek south past the Santa Ana River crossing, the median is between 55 and 60 feet wide. South of the Santa Ana River crossing, the median is approximately 55 ft. The median width for the area south of the Santa Ana River bridges to the SR 304-10 interchange is approximately 40 ft.

All overcrossings are assumed to be able to accommodate widening. If an overcrossing is planned to be widened as part of a major street project, it is assumed to be part of the major street project and not the freeway project.

REFERENCE DOCUMENTS:

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES: (East to West)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (SQ FT)	NOTES
1	Lugonia Undercrossing	170	2	-	Ramps are included in bridge width. Gap between bridges is approximately 140 feet.
2	San Bernardino Undercrossing	185	2	9,250	Interchange with 4 ramps. Gap between bridges is approximately 40 feet.
3	Pioneer Undercrossing	140	2	7,000	Ramps are included in bridge width. Gap between bridges is approximately 35 feet.
4	Santa Ana River Undercrossing	895	2	44,750	Water crossing. Gap between bridges is approximately 50 feet.
5	Santa Ana River Crossing 2	145	2	7,250	Water crossing. Gap between bridges is approximately 50 feet.
6	Santa Ana River Crossing 3	185	2	9,250	Water crossing. Gap between bridges is approximately 50 feet.
7	5th Street Undercrossing *	200	2	10,000	Interchange with 4 ramps. Gap between bridges is approximately 70 feet.
8	City Creek Channel Undercrossing	865	2	32,750	Water crossing. Portion of the 5th Street ramps are part of structure.
9	Victoria Undercrossing	200	2	10,000	Gap between bridges is approximately 85 feet.
10	Sand Creek Channel Undercrossing	285	2	13,250	Gap between bridges is approximately 85 feet.
11	Arden Ave/Highland Ave Undercrossing (R)	830	1	-	Interchange with 4 ramps. Skewed. (R/L designation looking west). Gap between bridges is approximately 85 feet.
	Highland Ave Undercrossing (L)	820	1	-	
12	Sterling Ave Undercrossing	180	2	-	Skew. Gap between bridges is approximately 45 feet.
13	Del Rosa Undercrossing *	200	2	-	Interchange with 4 ramps. Slight skew. Gap between bridges is approximately 50 feet.
14	Golden Ave Undercrossing	155	2	-	Gap between bridges is approximately 45 feet.
15	East Twin Channel Undercrossing	85	2	-	Gap between bridges is approximately 45 feet.
16	Miramonte Undercrossing	160	2	-	
17	Little Mountain Undercrossing	205	2	-	
TOTAL WIDEN				143,500	

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Bridge lengths measured from SANBAG GIS resources, values rounded up to the nearest 5 foot increment.

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	Baseline Overcrossing*	-	-	-	Interchange with 4 ramps.
2	SR30/SR330 Overcrossing (West to South)	-	-	-	
3	Pedestrian Overcrossing	-	-	-	
4	SR 30/SR330 Overcrossing (East to North)	-	-	-	
5	Palm Overcrossing	-	-	-	
6	Orange Overcrossing	-	-	-	
7	Central Avenue Overcrossing	-	-	-	
8	Valencia Overcrossing	-	-	-	
9	Waterman Overcrossing *	-	-	-	Interchange with 4 ramps.
10	Sierra Overcrossing	-	-	-	
11	Mt. View Overcrossing	-	-	-	2 bridges
12	Arrowhead Overcrossing	-	-	-	
13	E Street Overcrossing	-	-	-	
14	SR 30/SR 259 (West to South) Overcrossing	-	-	-	
15	H Street Overcrossing	-	-	-	Interchange with 4 ramps.
16	Muscupabe Overcrossing	-	-	-	2 bridges

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

**SR-210 Widening Project (Alt. 2)
from I-215 to I-10**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	\$36,985,000
<i>Right of Way</i>	\$7,312,000
<i>Utility Relocations</i>	\$15,836,000
<i>Construction Items</i>	
<i>Roadway Construction</i>	\$84,448,000
<i>Wall Construction</i>	\$14,490,000
<i>Structures Construction</i>	\$86,333,000
<i>Mobilization</i>	\$18,528,000
<i>Construction Contingency</i>	\$27,791,000
<i>Additional Construction Items</i>	<u>\$32,000,000</u>
<i>Total Construction Cost</i>	<u>\$263,590,000</u>
<i>Total Project Cost</i>	<u>\$373,723,000</u>

SR-30/210 Widening (Alternative 2)
from I-215 to I-10

	Total Miles	11.5
Outside Lane constructed over existing shoulder	0.86	
Outside Lane	0	
Outside Shoulder	0.7	
HOV/Inside Lanes	2	
Inside Shoulder	2	

Construct one inside lane and shoulder
each direction where needed - about 5 miles.
Construct one HOV lane in each direction from
27th Street to I-10 - about 11-1/2 miles

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$36,985,000
2	Right of Way			
	Right of Way (acre/mile)	0.15		
	Residential (SF)			\$3,456,486
	Commercial (SF)			\$3,381,345
	Undeveloped land (SF)			<u>\$473,388</u>
	TOTAL Right of Way Cost			\$7,312,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	98%	\$1,350,000	\$15,214,500
	High Density	2%	\$2,700,000	<u>\$621,000</u>
	TOTAL Utilities Cost			\$15,836,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	9.89	\$50,000	\$494,500
	Earthwork - Other lanes	0	\$465,000	\$0
	Earthwork - Shoulder	8.05	\$1,495,000	\$12,034,750
	Pavement - Lanes	9.89	\$573,000	\$5,666,970
	Pavement - Shoulder	8.05	\$477,000	<u>\$3,839,850</u>
	Subtotal - Outside Paving and Earthwork			\$22,036,070
4b	Paving and Earthwork - Inside Widening			
	Earthwork	46	\$58,000	\$2,668,000
	Pavement - Lanes	23	\$573,000	\$13,179,000
	Pavement - Shoulder	23	\$477,000	<u>\$10,971,000</u>
	Subtotal - Inside Paving			\$26,818,000
4c	Barrier			
	Center barrier per mile	10	\$500,000	\$5,000,000
	Other barrier per mile	10	\$160,000	<u>\$1,600,000</u>
	Subtotal - Barrier			\$6,600,000
	Adjust mileage to account for entire 10 mile reach			

4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			
	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	36	\$100,000	<u>\$3,600,000</u>
	Subtotal Misc. Paving			\$3,600,000
	Subtotal Earthwork, Paving, and Barrier			\$59,054,070
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$2,952,704
	Front End Work	15%		\$8,858,111
	Drainage	3%		\$4,724,326
	Electrical	5%		\$2,952,704
	Miscellaneous	10%		<u>\$5,905,407</u>
	Subtotal Other Roadway Items			\$25,393,250
	TOTAL Roadway Construction Cost			\$84,448,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	15%	\$1,900,000	\$3,277,500
	Soundwall per mile	75%	\$1,300,000	<u>\$11,212,500</u>
	TOTAL Wall Construction Cost			\$14,490,000
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	372,125	\$232	\$86,333,000
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$86,333,000
	SUBTOTAL CONSTRUCTION COST			\$185,271,000
8	Mobilization	10%		\$18,528,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$27,791,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	2	\$1,000,000	\$2,000,000
	Major Freeway/Freeway I/C	2	\$15,000,000	\$30,000,000
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	0	\$500,000	<u>\$0</u>
	Subtotal Additional Features			\$32,000,000
11	TOTAL CONSTRUCTION COST			\$263,590,000
12	TOTAL PROJECT COST			<u>\$373,723,000</u>
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

PROJECT: SR 210/30 Widening
PROJECT LIMITS: 27th Street to I-10
PROJECT LENGTH: 11.5 miles
PROJECT SCOPE: Add 1 mixed flow in each direction and widen undercrossings (per 2004 RTP) and 1 HOV in each direction to have a total freeway cross section of 3 mixed flow and 1 HOV in each direction. Mixed flow lane addition only in areas that are currently 2 mixed flow in each direction.

ROADWAY FACTORS:

OUTSIDE LANE	0.33
INSIDE LANE	2.43
AUXILIARY	1
OUTSIDE SHOULDER	1
RETAINING WALL	0.15
SOUND WALL	0.75
RAMPS TOTAL	36

Approximately 5 miles of the project length will have a mixed flow lane added. The limits are from Highland Ave IC to San Bernardino IC. Within these limits there will be an approximately 16 feet of additional outside widening needed to accommodate both HOV and MF lanes.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-
BRIDGE WIDEN FACTOR (MULTI)	75
BRIDGE REPLACE LENGTH	-
BRIDGE REPLACE WIDTH	-

Assume bridges west of SR 259 are widened only 30 feet.

Assumed that all overcrossings can accommodate widening.

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.1
RESIDENTIAL	72%
COMMERCIAL	20%
UNDEVELOPED LAND	8%
HIGH DENSITY UTILITIES	2%
LOW DENSITY UTILITIES	38%

Assumed that addition of a lane can be mostly accommodated within existing right of way.

The remainder of the project area (minus commercial and bare land) per aerials and 2004 General Plan.

Approximately 4 miles out of a total 20 project miles are commercial per the 2004 General Plan.

Approximately 1.7 miles out of a total 20 project miles are "bare land". This area is primarily around the Santa Ana River/City Creek crossings.

Assumed to be low density utilities because primarily residential

OTHER FACTORS:

FWY TO FWY INTERCHANGES	3
MAJOR DRAINAGE FACILITIES	0
MAJOR WATER CROSSINGS	2
RAILROAD OVERCROSSINGS	0
RAILROAD UNDERCROSSINGS	1

SR 301-215, SR 259/SR 30, SR 30/ SR 330, SR 301-10 (the 259/30 and 30/330 IC combined are counted as 1 major IC)

There are three bridges crossing the Santa Ana River and 1 bridge crossing at City Creek.

GENERAL ASSUMPTIONS AND NOTES:

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

(From East to West) From I-10 to City Creek, freeway is elevated, from City Creek to Highland the freeway is depressed, Highland to project limits, freeway is elevated.

From I-215 to just east of H street, SR 30 is only 2 lanes in each direction. SR 210, Segment 11 Mainline will build a median lane and re-stripe (from east of Miramonte Dr) in each direction to match up to the 3 lanes in each direction. The 3 lanes in each direction is from I-259 to Highland Ave interchange after which it drops to two lanes in each direction until around San Bernardino IC near the SR 301-10 IC where it increase to 3 in each direction.

The median width (herein defined as ETW to ETW) from I-215 (just east of Miramonte) to I-259 will be 55 feet per the SR 210 Segment 11 Mainline plans. The median width from I-259 to Highland Ave Undercrossing is between 50 and 55 ft. The median from Highland to Victoria varies between 50 and 70 feet (in some areas as much as 74 feet). From Victoria to the 30/330 IC the median gets as wide as about 90 feet. From SR 300 to about City Creek the median is approximately 75 ft. From City Creek south past the Santa Ana River crossing, the median is between 55 and 60 feet wide. South of the Santa Ana River crossing, the median is approximately 85 ft. The median width for the area south of the Santa Ana River bridges to the SR 301-10 interchange is approximately 40 ft.

All overcrossings are assumed to be able to accommodate widening. If an overcrossing is planned to be widened as part of a major street project, it is assumed to be part of the major street project and not the freeway project.

REFERENCE DOCUMENTS:

SR 210 Segment 11 Plans - Mainline and Early

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

BRIDGES:		UNDERCROSSINGS (WIDEN)			NOTES
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (SQ FT)	
1	Lugonia Undercrossing	170	2	3,500	Ramps are included in bridge width. Gap between bridges is approximately 140 feet. Assume widening is 50 feet for HOV lane.
2	San Bernardino Undercrossing	185	2	13,375	Interchange with 4 ramps. Gap between bridges is approximately 40 feet.
3	Pioneer Undercrossing	140	2	10,500	Ramps are included in bridge width. Gap between bridges is approximately 35 feet.
4	Santa Ana River Undercrossing	895	2	87,125	Water crossing. Gap between bridges is approximately 50 feet.
5	Santa Ana River Crossing 2	145	2	10,375	Water crossing. Gap between bridges is approximately 50 feet.
6	Santa Ana River Crossing 3	185	2	13,375	Water crossing. Gap between bridges is approximately 50 feet.
7	5th Street Undercrossing *	200	2	15,000	Interchange with 4 ramps. Gap between bridges is approximately 70 feet.
8	City Creek Channel Undercrossing	855	2	48,125	Water crossing. Portion of the 5th Street ramps are part of structure.
9	Victoria Undercrossing	200	2	15,000	Gap between bridges is approximately 55 feet.
10	Sand Creek Channel Undercrossing	285	2	19,375	Gap between bridges is approximately 35 feet.
11	Arden Ave/Highland Ave Undercrossing (R.)	630	1	23,825	Interchange with 4 ramps. Skewed. (R/L designation looking west). Gap between bridges is approximately 35 feet.
	Highland Ave Undercrossing (L)	620	1	30,750	
12	Sterling Ave Undercrossing	180	2	9,000	Skew. Gap between bridges is approximately 45 feet. Assume 50 foot widening.
13	Del Rosa Undercrossing *	200	2	10,000	Interchange with 4 ramps. Slight skew. Gap between bridges is approximately 50 feet.
14	Golden Ave Undercrossing	155	2	7,750	Gap between bridges is approximately 45 feet. Assume 50 foot widening.
15	East Twin Channel Undercrossing	35	2	4,250	Gap between bridges is approximately 45 feet. Assume 50 foot widening.
16	Miramonte Undercrossing	160	2	8,000	Assume 50 foot widening.
17	Little Mountain Undercrossing	205	2	10,250	Assume 50 foot widening.
18	I-215 Undercrossing	355	2	17,750	Assume 50 foot widening.
19	Cajon Blvd Overhead	315	2	15,750	Railroad involvement. Assume 50 foot widening.
20	27th Street Undercrossing	225	3	11,250	One of the structures is for the ES Line. Assume 50 foot widening.
TOTAL WIDEN				372,125	

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Bridge lengths measured from SANBAG GIS resources, values rounded up to the nearest 5 foot increment.

SAN BERNARDINO VALLEY FREEWAY PROJECTS WORKSHEET

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	Baseline Overcrossing*	-	-	-	Interchange with 4 ramps.
2	SR30/SR330 Overcrossing (West to South)	-	-	-	
3	Pedestrian Overcrossing	-	-	-	
4	SR 30/SR330 Overcrossing (East to North)	-	-	-	
5	Palm Overcrossing	-	-	-	
6	Orange Overcrossing	-	-	-	
7	Central Avenue Overcrossing	-	-	-	
8	Valencia Overcrossing	-	-	-	
9	Waterman Overcrossing *	-	-	-	Interchange with 4 ramps.
10	Sierra Overcrossing	-	-	-	
11	Mt. View Overcrossing	-	-	-	2 bridges
12	Arrowhead Overcrossing	-	-	-	
13	E Street Overcrossing	-	-	-	
14	SR 30/SR 259 (West to South) Overcrossing	-	-	-	
15	H Street Overcrossing	-	-	-	Interchange with 4 ramps.
16	Muscupia Overcrossing	-	-	-	2 bridges

Assumptions/Notes:

* Indicates on the interchange project list per the Needs Study and Expenditure Plan

Carpool Lane Connector Study Various Locations

2010-2040 Measure I Strategic Plan Conceptual Cost Estimate

Project Support	\$0
Right of Way	\$0
Utility Relocations	\$0
Construction Items	
Roadway Construction	\$0
Wall Construction	\$0
Structures Construction	\$0
Mobilization	\$0
Construction Contingency	\$0
Additional Construction Items	<u>\$0</u>
Total Construction Cost	<u>\$0</u>
Total Project Cost	<u><u>\$90,000,000</u></u>

Carpool Connectors Various Locations (Study Only)

Construct one inside lane and shoulder
each direction where needed - about 5 miles.

Total Miles	0
Outside Lane constructed over existing shoulder	0
Outside Lane	0
Outside Shoulder	0
HOV/Inside Lanes	0
Inside Shoulder	0

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$0
2	Right of Way			
	Right of Way (acre/mile)	0		\$0
	Residential (SF)			\$0
	Commercial (SF)			\$0
	Undeveloped land (SF)			\$0
	TOTAL Right of Way Cost			\$0
3	Utility Relocations			
	Utilities (cost per mile)			\$0
	Low Density	0%	\$1,350,000	\$0
	High Density	0%	\$2,700,000	\$0
	TOTAL Utilities Cost			\$0
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	0	\$50,000	\$0
	Earthwork - Other lanes	0	\$465,000	\$0
	Earthwork - Shoulder	0	\$1,495,000	\$0
	Pavement - Lanes	0	\$573,000	\$0
	Pavement - Shoulder	0	\$477,000	\$0
	Subtotal - Outside Paving and Earthwork			\$0
4b	Paving and Earthwork - Inside Widening			
	Earthwork	0	\$58,000	\$0
	Pavement - Lanes	0	\$573,000	\$0
	Pavement - Shoulder	0	\$477,000	\$0
	Subtotal - Inside Paving			\$0
4c	Barrier			
	Center barrier per mile	0	\$500,000	\$0
	Other barrier per mile	0	\$160,000	\$0
	Subtotal - Barrier			\$0
	Adjust mileage to account for entire 10 mile reach			
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	0	\$100,000	\$0
	Subtotal Misc. Paving			\$0
	Subtotal Earthwork, Paving, and Barrier			\$0
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$0
	Front End Work	15%		\$0
	Drainage	5%		\$0
	Electrical	5%		\$0
	Miscellaneous	10%		\$0
	Subtotal Other Roadway Items			\$0
	TOTAL Roadway Construction Cost			\$0
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	0%	\$1,900,000	\$0
	Soundwall per mile	0%	\$1,300,000	\$0
	TOTAL Wall Construction Cost			\$0
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	0	\$232	\$0
	R/R O/C Replacement (ea.)	0	\$3,000,000	\$0
7	TOTAL Structures Cost			\$0
	SUBTOTAL CONSTRUCTION COST			\$0
8	Mobilization	10%		\$0
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$0
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	0	\$1,000,000	\$0
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	0	\$500,000	\$0
	Subtotal Additional Features			\$0
11	TOTAL CONSTRUCTION COST			\$0
12	TOTAL PROJECT COST			\$90,000,000
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

*2010-2040 Measure I
Strategic Plan*

*Cajon Pass
Cost Estimates*

June 21, 2006

2010-2040 Measure I Strategic Plan

Cajon Pass Projects

Project Description	Cost Estimate Updated	Cost Estimate Expenditure Plan	Delta
Devore Interchange Project I-15 & I-215	\$201,555,000	\$40,000,000	--
I-15 Widening Project (Sag 3) from Devore I/C to Rte 395	\$269,833,000	\$170,000,000	--
Total Cajon Pass Projects	\$471,388,000	\$210,000,000	-\$261,388,000

**I-15 Widening Project
from I15/I215 I/C to US 395**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	\$59,426,000
<i>Right of Way</i>	\$10,079,000
<i>Utility Relocations</i>	\$20,250,000
<i>Construction Items</i>	
<i>Roadway Construction</i>	\$119,770,000
<i>Wall Construction</i>	\$11,250,000
<i>Structures Construction</i>	\$5,440,400
<i>Mobilization</i>	\$13,647,000
<i>Construction Contingency</i>	\$20,470,000
<i>Additional Construction Items</i>	<u>\$9,500,000</u>
<i>Total Construction Cost</i>	<u>\$180,078,000</u>
<i>Total Project Cost</i>	<u><u>\$269,833,000</u></u>

**I-15 Widening (Segs 3 & 4)
from I-215 I/C to Route 395**

Assumes AC Pavement

Total Miles	15
Outside Lane constructed over existing shoulder	0
Outside Lane	0
Outside Shoulder	0
HOV/Inside Lanes	2
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PAVED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$59,425,000
2	Right of Way			
	Right of Way (acre/mile)	0.5		
	Residential (SF)			\$3,757,050
	Commercial (SF)			\$1,470,150
	Undeveloped land (SF)			<u>\$4,851,495</u>
	TOTAL Right of Way Cost			\$10,079,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	100%	\$1,350,000	\$20,250,000
	High Density	0%	\$2,700,000	<u>\$0</u>
	TOTAL Utilities Cost			\$20,250,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - Lump Sum	5	\$8	\$40,000,000
	Earthwork - N/A	million cy	\$0	\$0
	Earthwork - N/A		\$0	\$0
	Pavement - Lanes	0	\$573,000	\$0
	Pavement - Shoulder	0	\$477,000	<u>\$0</u>
	Subtotal - Outside Paving and Earthwork			\$40,000,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork - N/A	60	\$0	\$0
	Pavement - Lanes	30	\$573,000	\$17,190,000
	Pavement - Shoulder	30	\$477,000	<u>\$14,310,000</u>
	Subtotal - Inside Paving			\$31,500,000
4c	Barrier			
	Center barrier per mile	15	\$500,000	\$7,500,000
	Other barrier per mile	15	\$160,000	<u>\$2,400,000</u>
	Subtotal - Barrier			\$9,900,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	0.00	\$535,000	\$0
	Ramp Mod. (ea. ramp)	12	\$100,000	<u>\$1,200,000</u>
	Subtotal Misc. Paving			\$1,200,000
	Subtotal Earthwork, Paving, and Barrier			\$82,600,000
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$4,130,000
	Front End Work	15%		\$12,390,000
	Drainage	10%		\$8,260,000
	Electrical	5%		\$4,130,000
	Miscellaneous	10%		<u>\$8,260,000</u>
	Subtotal Other Roadway Items			\$37,170,000
	TOTAL Roadway Construction Cost			\$119,770,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	25%	\$3,000,000	\$11,250,000
	Soundwall per mile	0%	\$1,300,000	\$0
	TOTAL Wall Construction Cost			\$11,250,000
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	23,450	\$232	\$5,440,400
	R/R O/C Replacement (ea.)	0	\$3,000,000	\$0
7	TOTAL Structures Cost			\$5,440,400
	SUBTOTAL CONSTRUCTION COST			\$136,461,000
8	Mobilization	10%		\$13,647,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$20,470,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	0	\$500,000	\$0
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	1	\$2,000,000	\$2,000,000
	Landscape (per mile)	15	\$500,000	<u>\$7,500,000</u>
	Subtotal Additional Features			\$9,500,000
11	TOTAL CONSTRUCTION COST			\$180,073,000
12	TOTAL PROJECT COST			<u>\$269,833,000</u>
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

CAJON PASS PROJECTS WORKSHEET

PROJECT: I-15 Widening - Cajon Pass
 PROJECT LIMITS: I-215 to US 395
 PROJECT LENGTH: 3
 PROJECT SCOPE: Add 1 HOV in each direction.

ROADWAY FACTORS:

OUTSIDE LANE	
INSIDE LANE	2
AUXILIARY	-
OUTSIDE SHOULDER	2
RETAINING WALL	0.25
SOUND WALL	0.25
RAMPS TOTAL	3

Does not include proposed interchange ramps.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	52
BRIDGE WIDEN FACTOR (MULTI)	-
BRIDGE REPLACE LENGTH	-
BRIDGE REPLACE WIDTH	-

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.2
RESIDENTIAL	15%
COMMERCIAL	50%
UNDEVELOPED LAND	35%
HIGH DENSITY UTILITIES	80%
LOW DENSITY UTILITIES	40%

Approx. 3 (3.5 Seg 2) miles of frontage road on NB side of freeway and about 5 (3 Seg 2) miles on SB side adjacent

OTHER FACTORS:

FWY TO FWY INTERCHANGES	0
MAJOR DRAINAGE	0
MAJOR WATER CROSSINGS	1
RAILROAD OVERCROSSINGS	0
RAILROAD UNDERCROSSINGS	1

GENERAL ASSUMPTIONS AND NOTES:

Assume sufficient right of way in median to accommodate most of widening with the exception of slight outside widening (approximately 5 feet on each side).

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

Per PBs comprehensive corridor study, the existing I-15 between SR 80 and US-395 is an 3 lane facility with a 10 to 15 ft median and 4-8 ft median shoulder, 4-12 ft travel lanes (in each direction) and an 8 to 12 ft outside shoulder. There is approximately 12 to 24 ft of additional vacant right of way (outside).

Per PBs report, there is a truck climbing lane on northbound I-15 from SR 138 to the Cajon Summit.

REFERENCE DOCUMENTS:

I-15 Comprehensive Corridor Study, Final Report. Parsons Brinckerhoff. December 20, 2005.

CAJON PASS PROJECTS WORKSHEET

BRIDGES: (South to North)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (FT)	NOTES
1	Kenwood Avenue Undercrossing	150	2		Interchange with 4 ramps. Two structures with approx. 75 feet between structures.
2	Mathews Ranch Road Undercrossing	0	1	-	Looks like a culvert type structure, approx 195 feet wide?
3	Claghorn Canyon Wash Undercrossing	300	2		
4	___ Wash Undercrossing	165	2		
5	___ Wash Undercrossing	160	4		Includes two ramp structures.
6	Claghorn Fire Rd/Cajon Blvd Undercrossing	160	2		Interchange with 4 ramps. Truck weigh station just north of interchange.
7	BNSF/UP Railroad Underpass	55	1		Skew. Approximately 230 ft wide.
8	BNSF/UP Railroad Underpass	60	1		Skew. Approximately 315 ft wide.
9	UP Railroad Underpass	95	1		Median starts to go wide after this structure. Skew. Approximately 325 ft wide.
10	UP Railroad Underpass	155	4		North of Ranchero Road. Two of the four structures are for the frontage roads. There is a 35 ft gap between the I-15 structures. There is a 40 ft gap between NB I-15 and the frontage road and a 20 ft gap between the SB I-15 and the frontage road.
TOTAL WIDEN		1,290	20	0	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	SR 138 Overcrossing	55	-	-	Interchange with 5 ramps. Existing structure length is about 310 feet. Steel structure.
2	Cak Hill Overcrossing	40	-	-	Interchange with 4 ramps. The median starts to narrow again at this point (after the Cajon Pass). Frontage road on both sides of freeway. Existing bridge length about 295 feet. Just north of this IC the pavement on the SB side is AC. The northbound side is AC
TOTAL REPLACE					

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Assume interchange projects will be done prior to freeway widening and therefore not replaced as part of freeway project.

**Devore Interchange Project
I-15 & I-215**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>		\$46,471,000
<i>Right of Way</i>		\$10,213,000
<i>Utility Relocations</i>		\$4,050,000
<i>Construction Items</i>		
<i>Roadway Construction</i>	\$43,260,000	
<i>Wall Construction</i>	\$3,870,000	
<i>Structures Construction</i>	\$61,925,600	
<i>Mobilization</i>	\$10,906,000	
<i>Construction Contingency</i>	\$16,359,000	
<i>Additional Construction Items</i>	<u>\$4,500,000</u>	
<i>Total Construction Cost</i>		<u>\$140,821,000</u>
<i>Total Project Cost</i>		<u><u>\$201,555,000</u></u>

**Devore Interchange
(I-15 & I-215 Interchange)**

Total Miles	3
Outside Lane (constructed over existing shoulder)	2
Outside Lane	1
Outside Shoulder	1.5
HOV/Inside Lanes	2
Inside Shoulder	1.5

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PAVED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$46,471,000
2	Right of Way			
	Right of Way (acre/mile)	5		\$4,508,480
	Residential (SF)			\$0
	Commercial (SF)			<u>\$5,704,182</u>
	Undeveloped land (SF)			\$10,213,000
	TOTAL Right of Way Cost			
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	100%	\$1,350,000	\$4,050,000
	High Density	0%	\$2,700,000	<u>\$0</u>
	TOTAL Utilities Cost			\$4,050,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	6	\$50,000	\$300,000
	Earthwork - Other lanes	3	\$465,000	\$1,395,000
	Earthwork - Shoulder	4.5	\$1,495,000	\$6,727,500
	Pavement - Lanes	9	\$573,000	\$5,157,000
	Pavement - Shoulder	4.5	\$477,000	<u>\$2,146,500</u>
	Subtotal - Outside Paving and Earthwork			\$15,726,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	10.5	\$58,000	\$609,000
	Pavement - Lanes	6	\$573,000	\$3,438,000
	Pavement - Shoulder	4.5	\$477,000	<u>\$2,146,500</u>
	Subtotal - Inside Paving			\$6,193,500
4c	Barrier			
	Center barrier per mile	3	\$500,000	\$1,500,000
	Other barrier per mile	3	\$160,000	<u>\$480,000</u>
	Subtotal - Barrier			\$1,980,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	2.00	\$535,000	\$3,210,000
	Ramp Mod. (ea. ramp)	8	\$100,000	<u>\$800,000</u>
	Subtotal Misc. Paving			\$4,010,000
	Subtotal Earthwork, Paving, and Barrier			\$27,909,500
4e	Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs			
	Removals	5%		\$1,395,475
	Front End Work	15%		\$4,186,425
	Drainage	15%		\$4,186,425
	Electrical	10%		\$2,790,950
	Miscellaneous	10%		<u>\$2,790,950</u>
	Subtotal Other Roadway Items			\$15,350,225
	TOTAL Roadway Construction Cost			\$43,260,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	30%	\$3,000,000	\$2,700,000
	Soundwall per mile	30%	\$1,300,000	<u>\$1,170,000</u>
	TOTAL Wall Construction Cost			\$3,870,000
6	Structures Construction			
	Includes replacements, widenings and allowance for associated street/ramp modifications			
	O/C - Replacement (sf)	281,480	\$220	\$61,925,600
	U/C Widening (sf)	0	\$232	\$0
	R/R O/C Replacement (ea.)	0	\$3,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$61,925,600
	SUBTOTAL CONSTRUCTION COST			\$109,056,000
8	Mobilization	10%		\$10,906,000
	Percentage of SUBTOTAL Construction Cost			
9	Construction Contingency	15%		\$16,359,000
	Percentage of SUBTOTAL Construction Cost			
10	Additional Potential Features and Items			
	Significant Water Crossings	2	\$500,000	\$1,000,000
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	1	\$2,000,000	\$2,000,000
	Landscape (per mile)	3	\$500,000	<u>\$1,500,000</u>
	Subtotal Additional Features			\$4,500,000
11	TOTAL CONSTRUCTION COST			\$140,321,000
12	TOTAL PROJECT COST			<u>\$201,555,000</u>
	Sum of Project Support, Right of Way, Utilities, and Construction Costs			

CAJON PASS PROJECTS WORKSHEET

PROJECT: Devore Interchange - Alternative 1
 PROJECT LIMITS: From the railroad underpass on I-15 and from just south of Devore Road interchange on I-215 to Kenwood Ave interchange on I-15
 PROJECT LENGTH (MI): 3 total (2.2 on I-15 and 0.8 on I-215)
 PROJECT SCOPE: Reconfigure interchange so that I-15 is the major movement through the interchange and to have 4 lanes of traffic in each direction on I-215 through the interchange.

ROADWAY FACTORS:

OUTSIDE LANE		
INSIDE LANE		Assume 823,528 sq ft of roadway requiring major grading and 724,912 sq ft requiring minor grading. Assume of the total 1,548,440 sq ft of roadway, there is a total of 995,300 sq feet of shoulder.
AUXILIARY		
OUTSIDE SHOULDER		
RETAINING WALL		Assume 180 feet of retaining wall average 10 feet high (approximate area of 1800 sq ft)
SOUND WALL		Assume 3579 feet of sound wall at approximately 10 feet high (35,790 sq ft)
RAMPS TOTAL	3	Includes the ramps at the Devore Road interchange and the Kenwood Interchange.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	-
BRIDGE WIDEN FACTOR (MULTI)	-
BRIDGE REPLACE LENGTH	VAR
BRIDGE REPLACE WIDTH	VAR

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	5
RESIDENTIAL	5%
COMMERCIAL	25%
UNDEVELOPED LAND	80%
HIGH DENSITY UTILITIES	0%
LOW DENSITY UTILITIES	100%

OTHER FACTORS:

FWY TO FWY INTERCHANGES	-
MAJOR DRAINAGE FACILITIES	
MAJOR WATER CROSSINGS	1
RAILROAD OVERCROSSINGS	-
RAILROAD UNDERCROSSINGS	1

GENERAL ASSUMPTIONS AND NOTES:

Assume ADL soil can be reused onsite
 Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.
 Potential for additional seismic design considerations for structures.
 Assume that realignment will result in replacing undercrossings rather than just widen.

REFERENCE DOCUMENTS:

I-15 Comprehensive Corridor Study, Final Report. Parsons Brinckerhoff, December 20, 2005.

CAJON PASS PROJECTS WORKSHEET

BRIDGES: (South to North)

UNDERCROSSINGS (REPLACE)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	TOTAL REPLACE AREA (SQ FT)	NOTES
1	I-15 SB over BNSF/UP Railroad	280	1	26,880	Assume width can accommodate 5 travel lanes and shoulders and gore (Use average width of 96 feet)
2	I-15 NB over BNSF/UP Railroad	280	1	22,400	Assume width can accommodate 5 travel lanes and shoulders. (Width of approx. 80 feet)
3	I-215 NB to I-15 SB Connector over Cajon Creek Wash	685	1	21,320	Assume can accommodate 1 travel lane and two shoulders (Width of 32 feet)
4	I-15 SB over Cajon Creek Wash	570	1	38,760	Assume can accommodate 4 travel lanes and shoulders (Width of 68 feet)
5	I-15 NB over Cajon Creek Wash	590	1	46,920	Assume can accommodate 4 travel lanes and shoulders (Width of 68 feet)
6	I-15 NB to I-215 SB Connector over Cajon Creek Wash	500	1	16,000	Assume can accommodate 1 travel lane and two shoulders. (Width of 32 feet)
7	I-15 SB over I-215 SB Connector and over the I-215 NB to I-15 SB Connector	1140	1	77,520	Assume can accommodate 4 travel lanes and shoulders. (Width of 68 feet)
8	I-15 NB over I-215 SB Connector and over the I-215 NB to I-15 SB Connector	360	1	24,480	Assume can accommodate 4 travel lanes and shoulders. (Width of 68 feet)
9	I-215 SB over the I-215 NB to I-15 SB Connector	150	1	6,300	Assume accommodates 2 travel lanes and shoulders. (Width of 44 feet)
10	Kenwood Avenue Undercrossing	-	2	-	Assume no change to structures. Interchange with 4 ramps.
TOTAL UNDERCROSSING REPLACE		4855		281,480	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	Devore Overcrossing over I-215	-	-	-	Assume can accommodate widening of I-215 and realignment. Bridge has open abutments and no columns at the edge of traveled way. Bridge slopes down from north to south. Length of bridge is approximately 265 feet. Interchange with 4 ramps.
2	Devore Overcrossing over the I-15 NB to I-215 SB Connector.	-	-	-	Assume can accommodate widening of I-215 and realignment. Bridge has open abutments and no columns at the edge of traveled way. Length of bridge is approximately 135 feet. Part of interchange see above.

Assumptions/Notes:

*2010-2040 Measure I
Strategic Plan*

*Victor Valley Subarea
Cost Estimates*

June 21, 2006

2010-2040 Measure I Strategic Plan

Victor Valley Subarea

<i>Project Description</i>	<i>Updated Project Cost Estimate</i>
<i>Major Local Highways:</i>	
<i>I-15 Widening (Seg 2)</i> from Route 395 to 1 mile south of Bear Valley Road	\$96,329,000
<i>I-15 Widening (Seg 1)</i> from 1 mile south of Bear Valley Road to Mojave River	\$301,340,000
<i>Interchange Projects:</i>	
<i>Ranchero Road</i> New interchange on I-15 at Ranchero Road	\$66,800,000
<i>Eucalyptus Street</i> New interchange on I-15 at Eucalyptus St.	\$69,400,000
<i>La Mesa Road/Nisqualli Road</i> New interchange on I-15 at	\$69,100,000

Cost Estimate Unit Rates - Highway/Expressway and Arterials (Desert Areas)

Note: Rates subject to adjustment within individual estimates to account for specific project conditions

Two Lane Arterial	Units	Rate
AC Pavement - assume two 12' lanes w/o shoulders w/ 6" AC and 8" AB	Mile	\$545,000
Grading/Earthwork - assume minimal excavation (2 foot on each lane)	Mile	\$94,000
Retaining Walls - none	Mile	\$0
Intersection tie-ins to existing roads	each	\$40,000
Subtotal		\$679,000
Other Roadway Items (drainage, removals, front end work, electrical, and striping/signs - assume 40%)		\$271,600
Mobilization and Contingency (10% and 15%)		\$237,650
Total Construction Cost per mile		\$1,188,250
Utilities	Lump Sum/mile	\$200,000
Right of Way -	Lump Sum/mile	\$500,000
Support - PA/ED, Engineering, Construction Mgmt., Misc. (33% of Construction Total)		\$392,123
Total Cost (per mile)		\$2,280,373

Note: AC price = \$85/ton; Aggregate Base=\$45/cy; Earthwork=\$10/cy; C&G=\$12/lf; Sidewalk - 3 foot wide at \$3/sf

Additional Items (add to cost per mile):

Curb, gutter and sidewalk on two sides \$275,000

Four Lane Expressway

Total Cost (per mile) \$30,000,000

Six Lane Highway

Total Cost (per mile) \$35,000,000

I-15 Widening Project (Segment 2)
from 1 mi. S/O Bear Valley Rd. to Route 18

2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate

Project Support \$40,497,000

Right of Way \$124,627,000

Utility Relocations \$13,500,000

Construction Items

Roadway Construction \$66,828,000

Wall Construction \$14,600,000

Structures Construction \$11,943,360

Mobilization \$9,338,000

Construction Contingency \$14,006,000

Additional Construction Items \$6,000,000

Total Construction Cost \$122,716,000

Total Project Cost \$301,340,000

I-15 Widening (Seg 2)
from Route 395 to 1 mile south of Bear Valley Road

Total Miles	6
Outside Lane (constructed over existing shoulder)	2
Outside Lane	0
Outside Shoulder	2
HOV/Inside Lanes	1
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$20,397,000
2	Right of Way			
	Right of Way (acre/mile)	0.2		
	Residential (SF)			\$1,803,384
	Commercial (SF)			\$2,352,240
	Undeveloped land (SF)			<u>\$352,836</u>
	TOTAL Right of Way Cost			\$4,509,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	100%	\$1,350,000	\$8,100,000
	High Density	0%	\$2,700,000	<u>\$0</u>
	TOTAL Utilities Cost			\$8,100,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	12	\$50,000	\$600,000
	Earthwork - Other lanes	0	\$230,000	\$0
	Earthwork - Shoulder	12	\$490,000	\$5,880,000
	Pavement - Lanes	12	\$357,000	\$4,284,000
	Pavement - Shoulder	12	\$298,000	<u>\$3,576,000</u>
	Subtotal - Outside Paving and Earthwork			\$14,340,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	18	\$58,000	\$1,044,000
	Pavement - Lanes	6	\$357,000	\$2,142,000
	Pavement - Shoulder	12	\$298,000	<u>\$3,576,000</u>
	Subtotal - Inside Paving			\$6,762,000
4c	Barrier			
	Center barrier per mile	6	\$500,000	\$3,000,000
	Other barrier per mile	6	\$160,000	<u>\$960,000</u>
	Subtotal - Barrier			\$3,960,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	1.00	\$535,000	\$3,210,000
	Ramp Mod. (ea. ramp)	8	\$100,000	<u>\$800,000</u>
	Subtotal Misc. Paving			\$4,010,000
	Subtotal Earthwork, Paving, and Barrier			\$29,072,000
4e	<i>Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs</i>			
	Removals	5%		\$1,453,600
	Front End Work	15%		\$4,360,800
	Drainage	15%		\$4,360,800
	Electrical	5%		\$1,453,600
	Miscellaneous	10%		<u>\$2,907,200</u>
	Subtotal Other Roadway Items			\$14,536,000
	TOTAL Roadway Construction Cost			\$43,608,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	25%	\$1,800,000	\$2,700,000
	Soundwall per mile	25%	\$1,300,000	<u>\$1,950,000</u>
	TOTAL Wall Construction Cost			\$4,650,000
6	Structures Construction			
	<i>Includes replacements, widenings and allowance for associated street/ramp modifications</i>			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	0	\$232	\$0
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$0
	SUBTOTAL CONSTRUCTION COST			\$48,258,000
8	Mobilization	10%		\$4,826,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
9	Construction Contingency	15%		\$7,239,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
10	Additional Potential Features and Items			
	Significant Water Crossings	0	\$500,000	\$0
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	0	\$2,000,000	\$0
	Landscape (per mile)	6	\$500,000	<u>\$3,000,000</u>
	Subtotal Additional Features			\$3,000,000
11	TOTAL CONSTRUCTION COST			\$63,323,000
12	TOTAL PROJECT COST			<u><u>\$96,829,000</u></u>
	<i>Sum of Project Support, Right of Way, Utilities, and Construction Costs</i>			

**I-15 Widening Project (Segment 1)
from 1 mi. S/O Bear Valley Rd. to Route 18**

**2010-2040 Measure I Strategic Plan
Conceptual Cost Estimate**

<i>Project Support</i>	<i>\$40,497,000</i>
<i>Right of Way</i>	<i>\$124,627,000</i>
<i>Utility Relocations</i>	<i>\$13,500,000</i>
<i>Construction Items</i>	
<i>Roadway Construction</i>	<i>\$66,828,000</i>
<i>Wall Construction</i>	<i>\$14,600,000</i>
<i>Structures Construction</i>	<i>\$11,943,360</i>
<i>Mobilization</i>	<i>\$9,338,000</i>
<i>Construction Contingency</i>	<i>\$14,006,000</i>
<i>Additional Construction Items</i>	<i><u>\$6,000,000</u></i>
<i>Total Construction Cost</i>	<i><u>\$122,716,000</u></i>
<i>Total Project Cost</i>	<i><u><u>\$301,340,000</u></u></i>

I-15 Widening (Seg 1)
from 1 mile south of Bear Valley Road to Mojave River

Total Miles	8
Outside Lane constructed over existing shoulder	2
Outside Lane	1
Outside Shoulder	2
HOV/Inside Lanes	0
Inside Shoulder	2

Item	Cost Category	Factor	Unit	Cost
1	Project Support			
	Percentage of constr. cost	33%		
	PA/ED			
	Engineering			
	Program Management & Oversight			
	Construction Management			
	TOTAL Project Support Cost			\$40,497,000
2	Right of Way			
	Right of Way (acre/mile)	7		
	Residential (SF)			\$16,831,584
	Commercial (SF)			\$87,816,960
	Undeveloped land (SF)			<u>\$19,978,358</u>
	TOTAL Right of Way Cost			\$124,627,000
3	Utility Relocations			
	Utilities (cost per mile)			
	Low Density	75%	\$1,350,000	\$8,100,000
	High Density	25%	\$2,700,000	<u>\$5,400,000</u>
	TOTAL Utilities Cost			\$13,500,000
4	Roadway Construction			
4a	Paving and Earthwork - Outside Widening			
	Earthwork - 1st lane	16	\$50,000	\$800,000
	Earthwork - Other lanes	8	\$230,000	\$1,840,000
	Earthwork - Shoulder	16	\$490,000	\$7,840,000
	Pavement - Lanes	24	\$357,000	\$8,568,000
	Pavement - Shoulder	16	\$298,000	<u>\$4,768,000</u>
	Subtotal - Outside Paving and Earthwork			\$23,816,000
4b	Paving and Earthwork - Inside Widening			
	Earthwork	16	\$58,000	\$928,000
	Pavement - Lanes	0	\$357,000	\$0
	Pavement - Shoulder	16	\$298,000	<u>\$4,768,000</u>
	Subtotal - Inside Paving			\$5,696,000
4c	Barrier			
	Center barrier per mile	8	\$500,000	\$4,000,000
	Other barrier per mile	8	\$160,000	<u>\$1,280,000</u>
	Subtotal - Barrier			\$5,280,000
4d	Miscellaneous Paving			
	Cost of frontage roads, local streets, misc. widening, ramps, etc.			

	Non-Freeway Road/Street	2.00	\$535,000	\$8,560,000
	Ramp Mod. (ea. ramp)	12	\$100,000	<u>\$1,200,000</u>
	Subtotal Misc. Paving			\$9,760,000
	Subtotal Earthwork, Paving, and Barrier			\$44,552,000
4e	<i>Other Roadway Construction Items - percentage of Earthwork, Paving, and Barrier costs</i>			
	Removals	5%		\$2,227,600
	Front End Work	15%		\$6,882,800
	Drainage	15%		\$6,882,800
	Electrical	5%		\$2,227,600
	Miscellaneous	10%		<u>\$4,455,200</u>
	Subtotal Other Roadway Items			\$22,276,000
	TOTAL Roadway Construction Cost			\$66,828,000
5	Wall Construction - Soundwalls and Retaining			
	Retaining wall per mile	50%	\$3,000,000	\$12,000,000
	Soundwall per mile	25%	\$1,300,000	<u>\$2,600,000</u>
	TOTAL Wall Construction Cost			\$14,600,000
6	Structures Construction			
	<i>Includes replacements, widenings and allowance for associated street/ramp modifications</i>			
	O/C - Replacement (sf)	0	\$250	\$0
	U/C Widening (sf)	51,480	\$232	\$11,943,360
	R/R O/C Replacement (ea.)	0	\$8,000,000	<u>\$0</u>
7	TOTAL Structures Cost			\$11,943,360
	SUBTOTAL CONSTRUCTION COST			\$93,372,000
8	Mobilization	10%		\$9,338,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
9	Construction Contingency	15%		\$14,006,000
	<i>Percentage of SUBTOTAL Construction Cost</i>			
10	Additional Potential Features and Items			
	Significant Water Crossings	0	\$500,000	\$0
	Major Freeway/Freeway I/C	0	\$15,000,000	\$0
	Major Drainage Systems (ea.)	1	\$2,000,000	\$2,000,000
	Landscape (per mile)	8	\$500,000	<u>\$4,000,000</u>
	Subtotal Additional Features			\$6,000,000
11	TOTAL CONSTRUCTION COST			\$122,716,000
12	TOTAL PROJECT COST			<u>\$301,340,000</u>
	<i>Sum of Project Support, Right of Way, Utilities, and Construction Costs</i>			

VICTOR VALLEY LOCAL MAJOR STREETS PROJECT WORKSHEET

PROJECT: I-15 Widening
 PROJECT LIMITS: US 395 to Stoddard Wells Road
 PROJECT LENGTH: Approx 167
 PROJECT SCOPE: Add 1 HOV in each direction.

ROADWAY FACTORS:

OUTSIDE LANE		
INSIDE LANE	2	
AUXILIARY	-	
OUTSIDE SHOULDER		
RETAINING WALL	0	
SCOUR WALL	0.17	
RAMPS TOTAL	40	Does not include proposed interchange ramps.

BRIDGE FACTORS:

BRIDGE WIDEN FACTOR (SINGLE)	52
BRIDGE WIDEN FACTOR (MULTI)	-
BRIDGE REPLACE LENGTH	-
BRIDGE REPLACE WIDTH	-

RIGHT OF WAY AND UTILITY FACTORS:

RIGHT OF WAY ACRE/MILE	0.375	Per PBs report, approximately 9 ac for Seg 1 and 5 ac for Seg 2 will be needed (for 1 HOV in each direction).
RESIDENTIAL	15%	PBs report states approx 2 ac residential, 2 ac commercial, 2 ac public services, utilities, remaining acreage is other?
COMMERCIAL	15%	
UNDEVELOPED LAND	35%	
HIGH DENSITY UTILITIES	60%	
LOW DENSITY UTILITIES	40%	

OTHER FACTORS:

FWY TO FWY INTERCHANGES	0
MAJOR DRAINAGE	0
MAJOR WATER CROSSINGS	1
RAILROAD OVERCROSSINGS	0
RAILROAD UNDERCROSSINGS	1

GENERAL ASSUMPTIONS AND NOTES:

Assume sufficient right of way in median to accommodate most of widening with the exception of slight outside widening (approximately 5 feet on each side).

Assume ADL soil can be reused onsite

Assume minimal retrofit to existing structures included in estimate. Major retrofit work not included.

Per PBs comprehensive corridor study, the existing I-15 between US-395 and D Street is generally a 6 lane facility with a 10 to 15 ft median and 4-8 ft median shoulder, 4-12 ft travel lanes (in each direction) and an 8 to 12 ft outside shoulder. There is approximately 12 to 24 ft of additional vacant right of way (outside).

Auxiliary lane are present at the Roy Rogers on-ramp to Mojave off-ramp in the northbound direction and in the southbound direction between D St and Mojave, Mojave and Roy Rogers, and Roy Rogers to Palmdale.

Per PBs report, frontage roads generally parallel I-15 through Victor Valley. On the northbound side a continuous frontage road (Mariposa Rd) is provided from Oak Hill to Palmdale. On the southbound side there is a frontage road from Palmdale to Main (Amargosa Rd) and from Joshua to Oak Hill (Caliente Rd). Frontage roads are generally undivided with one lane in each direction.

The interchange reconstruction report estimated approximately 65 acres of right of way would be required for the length of project between Mojave River and Stoddard Wells. (\$8MM)

REFERENCE DOCUMENTS:

I-15 Comprehensive Corridor Study, Final Report. Parsons Brinckerhoff, December 20, 2005.

Interchange Reconstruction in the City of Victorville, Draft Project Report. Jim Basicom and Guy Visbal (San Bernardino County Freeway Study Team). January 2005.

VICTOR VALLEY LOCAL MAJOR STREETS PROJECT WORKSHEET

BRIDGES: (South to North)

UNDERCROSSINGS (WIDEN)					
ID	BRIDGE	BRIDGE LENGTH (FT)	NO. OF STRUCTURES	WIDEN AREA (FT)	NOTES
1	California Aqueduct Undercrossing		1	-	Frontage roads adjacent to both NB and SB sides of freeway. NB side frontage road peels away from freeway a bit around Eucalyptus St.
2	National Trails Hwy/D Street Undercrossing	400	1	20,800	Interchange with 4 ramps. Crosses over railroad (4 tracks). (no median between this crossing and Mojave River crossing). Outside widen. I-15 ascends at a 4.54% grade at the ramp entrance. Per draft PSR, existing structure is 6 span composite welded steel girder structure. Existing minimum clearance above railroad is 7.31 m (24 ft)
3	E Street Undercrossing	-	-	-	Interchange with 4 ramps. Overcrossing structure is same as D street above.
4	Mojave River Undercrossing	590	1	30,380	Major water crossing. Median returns north of the crossing. Outside widen. Existing width is 85 ft.
TOTAL WIDEN		990	3	51,480	

Assumptions/Notes:

Bridge lengths/widths scaled off GIS resources from SANBAG website. Values rounded to nearest 5 foot increment.

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

OVERCROSSINGS (REPLACE)					
ID	BRIDGE	EXISTING BRIDGE WIDTH (FT)	ASSUMED REPLACE BRIDGE WIDTH (FT)	REPLACE AREA (SQ FT)	NOTES
1	US 395 Overcrossing	35	35	-	Bridge length approximately 385 feet. Steel Structure. Interchange with 2 ramps. Assume accommodates widening
2	Joshua Street Overcrossing *	30	-	-	Partial interchange with 2 ramps. Steel structure approximately 175 feet long. Frontage road adjacent to northbound 15 after Joshua IC.
3	Main Street Overcrossing	45	-	-	Interchange with 8 ramps. Bridge approximately 250 feet long. Assume bridge accommodates widening.
4	Bear Valley Road Overcrossing*	100	-	-	Interchange with 5 ramps. Existing structure length approximately 345 feet. Existing structure has columns located at toe of abutment.
5	Palmdale Overcrossing	85	85	-	Interchange with 6 ramps. Existing length is approx 235 feet. Looks like can accommodate widening. Ramps go under structure.
6	Roy Rogers/La Paz Overcrossing	85	85	-	Interchange with 4 ramps. Existing length is approx 370 feet. Median north of this area is approximately 40 feet. Frontage road on NB side between Palmdale and La Paz. Looks like can accommodate widening. Ramps also go under structure.
7	Mojave Drive Overcrossing	55	55	-	Interchange with 4 ramps. Existing length is approx 240 ft. Proposed project that will span I-15 adjacent to this location will accommodate future widening but the existing structure will not accommodate widening.
8	Stoddard Wells Overcrossing	30	-	-	Interchange with 4 ramps. Existing length approx 200 ft. Assume accommodates widening. Bridge cannot accommodate outside widening due to column spacing adjacent to traveled way (per PSR report)
TOTAL REPLACE					

Assumptions/Notes:

* Indicates on the interchange project list per the Nexus Study and Expenditure Plan

Assume interchange projects will be done prior to freeway widening and therefore not replaced as part of freeway project.

Minute Action

AGENDA ITEM: 12

Date: June 21, 2006

Subject: Funding Agreement with the Mobile Source Air Pollution Reduction Review Committee (MSRC) for the implementation of two new Freeway Service Patrol (FSP) Beats.

Recommendation:* Execute Contract No. C07021 between SANBAG and the MSRC, to receive MSRC funding for the implementation of two new FSP Beats.

Background: The San Bernardino FSP Program began full time service in January 2006 with the implementation of service in four areas within the valley portion of the County. FSP is a roving team of tow trucks that travel on selected San Bernardino County freeways during peak commute hours to assist motorists with car trouble. FSP programs have demonstrated many benefits by reducing the amount of time a motorist is in unsafe conditions in traffic lanes, traffic delay, fuel consumption, vehicular emissions and secondary accidents. Within the first six months of operation, FSP Program has assisted more than 9,000 motorists, which includes approximately:

- 500 motorists with over-heated vehicles,
- 600 motorists involved in an accident, and
- 1,500 motorists with a flat tire.

In October 2006, \$3.95 million dollars of MSRC Clean Transportation Funding for FSP projects became available for the four county transportation commissions

Approved
Plans and Programs Committees

Date:

Moved: *Second:*

In Favor: *Opposed:* *Abstained:*

Witnessed: _____

located within the South Coast Air Basin. An application for MSRC funding for the implementation of two new FSP Beats was submitted to the MSRC in April 2006. The application was subsequently approved and \$804,240 in MSRC funding has been allocated for new or expanded FSP service within the valley portion of San Bernardino County.

At this time Staff recommends that the new MSRC funding be used to offset tow service provider expenses associated with the remaining two beats not yet implemented. One of the two new Beats is State Route (SR) 60 beginning at Reservoir Street (Los Angeles County Line) and ending at Milliken Avenue in Rancho Cucamonga. It is approximately 9.96 miles in length. The other beat is roughly 6.79 miles in length and will begin at Interstate (I) 215 at Center Street (Riverside County Line) and end at 2nd Street in San Bernardino. Once implemented, the four existing beats and the two new beats will satisfy the commitment to the FSP service made possible by the existing State funding program.

In order to proceed with this project, the Agency must execute an agreement with the MSRC in order to receive this one-time grant funding. Please refer to the attached Statement of Work for this project, which also contains terms and conditions for receipt of funding as established by the MSRC.

Financial Impact: Funds for this task have been budgeted in Task Number 70407000 in the FY 2006/2007 Budget. The total eligible project costs are \$1,072,320, of which SANBAG will be allocated \$804,240 (75%) in funding from the MSRC, matched with \$268,080 (25%) in funding from the State already allocated for FSP.

Reviewed By: This Agenda Item will be reviewed by the Plans and Programs Committee on June 21, 2006. The Agreement has been reviewed as to form by SANBAG County Counsel.

Responsible Staff: Kelly Lynn, Air Quality/Mobility Program Manager
Marla Modell, Air Quality/Mobility Program Specialist
Michelle Kirkhoff, Director of Air Quality/Mobility Programs

SANBAG Contract No. C07021

by and between

San Bernardino Associated Governments

and

Mobile Source Air Pollution Reduction Review Committee (MSRC)

for

Implementation of two new FSP beats

FOR ACCOUNTING PURPOSES ONLY			
<input type="checkbox"/> Payable	Vendor Contract # _____	Retention: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Amendment
<input checked="" type="checkbox"/> Receivable			
Notes:			
Original Contract:	\$ <u>804,240</u>	Previous Amendments Total:	\$ _____
Contingency Amount:	\$ _____	Previous Amendments Contingency Total:	\$ _____
		Current Amendment:	\$ _____
		Current Amendment Contingency:	\$ _____
Contingency Amount requires specific authorization by Task Manager prior to release.			
Contract TOTAL →			\$ <u>804,240</u>
Please include funding allocation for the original contract or the amendment			
Task	Cost Code	Funding Sources	Amounts
1 7040700	5533	1 MSRC	\$ 804,240
2 _____	_____	2 _____	\$ _____
3 _____	_____	3 _____	\$ _____
4 _____	_____	4 _____	\$ _____
Original Board Approved Contract Date: <u>7/5/06</u> Contract Start: <u>7/5/06</u> Contract End: <u>2/28/10</u>			
New Amend. Approval (Board) Date: _____ Amend. Start: _____ Amend. End: _____			
If this is a multi-year contract/amendment, please allocate costs among fiscal years:			
Fiscal Year: <u>06/07</u> \$ <u>289,170</u>	Fiscal Year: <u>07/08</u> \$ <u>289,170</u>	Fiscal Year: <u>08/09</u> \$ <u>225,900</u>	
Is this consistent with the adopted budget? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If no, has the budget amendment been submitted? <input type="checkbox"/> Yes <input type="checkbox"/> No			
CONTRACT MANAGEMENT			
Please mark an "X" next to all that apply:			
<input checked="" type="checkbox"/> Intergovernmental	<input type="checkbox"/> Private	<input type="checkbox"/> Non-Local	<input type="checkbox"/> Local <input type="checkbox"/> Partly Local
Disadvantaged Business Enterprise: <input type="checkbox"/> No <input type="checkbox"/> Yes _____%			
Task Manager: <u>Michelle Kirkhoff</u>		Contract Manager: <u>Maria Modell</u>	

Task Manager Signature

Date

Contract Manager Signature

Date

Chief Financial Officer Signature

Date



South Coast Air Quality Management District

CONTRACT

1. **PARTIES** - The parties to this Contract are the South Coast Air Quality Management District (hereinafter referred to as "AQMD") whose address is 21865 East Copley Drive, Diamond Bar, California 91765, and SANBAG (hereinafter referred to as "CONTRACTOR") whose address is 1170 W. 3rd Street, 2nd Floor, San Bernardino, CA 92410.
2. **RECITALS**
 - A. AQMD is the local agency with primary responsibility for regulating stationary source air pollution in the South Coast Air Basin in the State of California (State). AQMD is authorized under State Health & Safety Code Section 44225 (Assembly Bill (AB) 2766) to levy a fee on motor vehicles for the purpose of reducing air pollution from such vehicles and to implement the California Clean Air Act.
 - B. Under AB 2766 the AQMD'S Governing Board has authorized the imposition of the statutorily set motor vehicle fee. By taking such action the State's Department of Motor Vehicles (DMV) is required to collect such fee and remit it periodically to AQMD.
 - C. AB 2766 further mandates that thirty (30) percent of such vehicle registration fees be placed by AQMD into a separate account for the sole purpose of implementing and monitoring programs to reduce air pollution from motor vehicles.
 - D. AB 2766 creates a regional Mobile Source Air Pollution Reduction Review Committee (MSRC) to develop a work program to fund projects from the separate account. Pursuant to approval of the work program by AQMD'S Governing Board, AQMD Board authorized a contract with CONTRACTOR for services described in Attachment 1 - Work Statement, expressly incorporated herein by this reference and made a part hereof of this Contract. CONTRACTOR warrants that it is well qualified, experienced, and has the expertise to provide such services on the terms set forth here.
3. **DMV FEES** - CONTRACTOR acknowledges that AQMD cannot guarantee the amount of fees to be collected under AB 2766 will be sufficient to fund this Contract. CONTRACTOR further acknowledges that AQMD'S receipt of funds is contingent on the timely remittance by State's DMV. AQMD assumes no responsibility for the collection and remittance of motor vehicle registration fees by DMV to AQMD in a timely manner.
4. **AUDIT** - Additionally, CONTRACTOR shall, at least once every two years, or within two years of the termination of the Contract if the term is less than two years, be subject to an audit by AQMD or its authorized representative to determine if the revenues received by CONTRACTOR were spent for the reduction of pollution from Motor Vehicles pursuant to the Clean Air Act of 1988. AQMD shall coordinate such audit through CONTRACTOR'S audit staff. If an amount is found to be inappropriately expended, AQMD may withhold revenue from CONTRACTOR in the amount equal to the amount which was inappropriately expended. Such withholding shall not be construed as AQMD'S sole

remedy and shall not relieve CONTRACTOR of its obligation to perform under the terms of this Contract.

5. CONTRACTOR's BID PROCESS - CONTRACTOR shall provide AQMD with CONTRACTOR's bid process and documentation if a bid process is required to expend the funds provided to CONTRACTOR under the terms of this Contract.
6. CO-FUNDING
 - A. CONTRACTOR shall provide co-funding in the amount of Two Hundred Sixty Eight Thousand and Eighty Dollars (\$268,080) for this project. If CONTRACTOR fails to provide this co-funding, then AQMD reserves the right to renegotiate this Contract.
 - B. If CONTRACTOR fails to obtain funding in the amount(s) referenced above, then AQMD reserves the right to renegotiate or terminate this Contract.
7. SERVICES - CONTRACTOR agrees to furnish all labor, materials, equipment, required licenses, permits, fees, and other appropriate legal authorization from all applicable federal, state, and local jurisdictions necessary to perform and complete, per schedule, in a professional manner, the services described herein.
8. REPORTING
 - A. PROGRESS REPORTS - CONTRACTOR shall submit progress reports to AQMD within fifteen (15) days of the end of the reporting period which shall be on a quarterly basis beginning three months after the date this Contract is signed by both parties. Such reports shall detail: 1) work performed during the current reporting period; 2) work planned for the next reporting period; 3) problems identified, solved, and/or unresolved; 4) the percentage of each task completed; 5) delays in meeting the project schedule with an explanation including a description of what steps will be taken to complete the project on time; and 6) a cost breakdown by cost category for each task showing both the amount of AB 2766 funds expended and co-funding expended for the reporting period and the cumulative period to date. Progress reports that do not comply will be returned to CONTRACTOR as inadequate. Under this policy, failure to submit progress reports within the allotted time may be considered a material breach and subject the Contract to termination.
 1. If CONTRACTOR fails to submit progress reports as required by the Contract, the following shall occur: If after seven (7) days past the progress report due date CONTRACTOR fails to submit progress reports, MSRC Contract staff will notify CONTRACTOR in writing of the delinquency and request that the progress report be submitted within seven (7) days of the written notice.
 2. For Monthly Reports: If CONTRACTOR fails to submit a progress report for the second consecutive month, the MSRC Contract Administrator shall send a second written notice indicating that two previous progress reports are due and that they must be submitted within fifteen (15) days. If CONTRACTOR fails to provide a report for a third consecutive month, AQMD's Procurement Manager shall provide written notice to CONTRACTOR to cure the delinquency within fifteen (15) days of the notice or be subject to termination within thirty (30) days.
 3. For Quarterly Reports: If CONTRACTOR fails to submit a progress report, the MSRC Contract Administrator shall send a written notice indicating that the progress report is due and that it must be submitted within fifteen (15) days. If CONTRACTOR does not respond within the allotted time, AQMD's Procurement Manager shall provide written notice to

CONTRACTOR to cure the delinquency within fifteen (15) days of the notice or be subject to termination within thirty (30) days.

4. If CONTRACTOR has a history of non-consecutive (three or more occasions) delinquent progress reports, this may be considered a material breach of the Contract and be grounds for immediate termination of the Contract. For example, if progress reports are submitted in such an inconsistent and sporadic fashion as to indicate a lack of compliance with this Contract provision (e.g., progress report submitted one month, skipping several months thereafter).
5. If a contract is terminated as a result of this policy, the direct contractor involved will not be eligible to apply for AB 2766 Discretionary Funds for two programs years.

B. **FINAL REPORT** - CONTRACTOR shall provide AQMD with a comprehensive final report prior to the end of the Contract term. The final report shall be subject to review by the MSRC and approval by AQMD. One letter-size paper copy and one electronic version in Microsoft Word format shall be provided to AQMD. The final report shall be complete and include illustrations and graphs, as appropriate, to document the work performed and the results thereof under this Contract. The final report will also contain, in detail, the reduction of mobile source air pollution emissions resulting from the project's implementation.

9. **TERM** - The term of this Contract is for Forty Four (44) months from the date of execution by both parties, unless terminated earlier as provided for in Paragraph 10 below entitled Termination, extended by amendment of this Contract in writing, or unless all work is completed and a final report is submitted and approved by AQMD prior to the termination date. No work shall commence prior to the Contract start date, except at CONTRACTOR'S cost and risk, and no charges are authorized until this Contract is fully executed. Upon written request and with adequate justification from CONTRACTOR, the MSRC Contracts Administrator may extend the Contract up to an additional six months at no additional cost. Term extensions greater than six months must be reviewed and approved by the MSRC.

10. **TERMINATION** - In the event any party fails to comply with any term or condition of this Contract, or fails to provide the services in the manner agreed upon by the parties, including, but not limited to, the requirements of Attachment 1 - Work Statement, this shall constitute a material breach of the Contract. The nonbreaching party shall have the sole and exclusive option either to notify the breaching party that it must cure this breach within fifteen (15) days or provide written notification of its intention to terminate this Contract with thirty (30) day's written notice. Notification shall be provided in the manner set forth in Paragraph 15 below, entitled - Notices. Termination shall not be the exclusive remedy of the nonbreaching party. The nonbreaching party reserves the right to seek any and all remedies provided by law. AQMD will reimburse CONTRACTOR for actual costs incurred (not to exceed the total Contract value), including all noncancellable commitments incurred in performance of this Contract through the effective date of termination for any reason other than breach.

11. **INSURANCE** Prior to the start of this Contract, CONTRACTOR shall furnish evidence of workers' compensation insurance in accordance with California statutory requirements and liability insurance with a combined single limit (general and automotive) of One Million Dollars (\$1,000,000). CONTRACTOR shall maintain such coverage during the term of this Contract and any extensions thereof. AQMD shall be named as an additional insured on such liability policy and thirty (30) days written notice of modification of any such insurance shall be given by CONTRACTOR to AQMD. Such modification is subject to preapproval by AQMD. If CONTRACTOR fails to maintain the required insurance coverage, AQMD reserves the right to terminate the Contract or purchase such additional

insurance and bill CONTRACTOR or deduct the cost thereof from any payments owed to CONTRACTOR.

12. INDEMNIFICATION - CONTRACTOR agrees to hold harmless, defend, and indemnify, AQMD, its officers, employees, agents, representatives, and successors-in-interest against any and all loss, damage, cost, or expenses which AQMD, its officers, employees, agents, representatives, and successors-in-interest may incur or be required to pay by reason of any injury or property damage caused or incurred by CONTRACTOR, its employees, subcontractors, or agents in the performance of this Contract.

13. PAYMENT

- A. AQMD shall reimburse CONTRACTOR up to a total amount of Eight Hundred Four Thousand Two Hundred and Forty Dollars (\$804,240) in accordance with Attachment 2 - Cost Schedule, expressly incorporated herein by this reference and made a part hereof of this Contract. Any funds not expended upon early contract termination or contract completion shall revert to the AB 2766 Discretionary Fund. Payment of charges shall be made by AQMD to CONTRACTOR within thirty (30) days after approval by AQMD of an itemized invoice prepared and furnished by CONTRACTOR, referencing the task completed or a percent of work accomplished and detailing line item expenditures as listed in Attachment 2, Costs by Category, and the amount of charge claimed.
- B. An invoice submitted to AQMD for payment must be prepared in duplicate, on company letterhead, and list AQMD'S contract number, period covered by invoice, and CONTRACTOR'S social security number or Employer Identification Number and submitted to:
- South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 91765
Attn: Cynthia Ravenstein, MSRC Contract Administrator
- C. AQMD'S payment of invoices shall be subject to the following limitations and requirements:
1. Charges for equipment, material, and supply costs, travel expenses, subcontractors, and other charges, as applicable, must be itemized by CONTRACTOR. Reimbursement for equipment, material, supplies, subcontractors, and other charges shall be made at actual cost. Supporting documentation must be provided for all individual charges (with the exception of direct labor charges provided by CONTRACTOR) in excess of Two Hundred and Fifty Dollars (\$250).
 2. CONTRACTOR'S failure to provide receipts shall be grounds for AQMD'S non-reimbursement of such charges. AQMD may reduce payments on invoices by those charges for which receipts were not provided.
- D. AQMD shall pay CONTRACTOR for travel-related expenses only if such travel is expressly set forth in Attachment 2 - Cost Schedule of this Contract or pre-authorized by AQMD in writing.

14. MOBILE SOURCE EMISSION REDUCTION CREDITS (MSERCs)

- A. The MSRC has adopted a policy that no MSERCs resulting from AB 2766 Discretionary Funds may be generated and/or sold.
- B. CONTRACTOR has the opportunity to generate MSERCs as a by-product of the project if a portion of the air quality benefits attributable to the project resulted from other funding sources. These MSERCs, which are issued by AQMD, are based upon the quantified vehicle miles traveled (VMT) by project vehicles or other activity data as appropriate. Therefore, a portion of prospective MSERCs, generated as a result of AB 2766 Funds, must be retired. The portion of prospective

credits funded by the AB 2766 program, and which are subject to retirement, shall be referred to as "AB 2766-MSERCs."

- C. The determination of AB 2766-MSERC's is to be prorated based upon the AB 2766 program's contribution to the cost associated with the air quality benefits. In the case where AB 2766 Discretionary Funds are used to pay for the full differential cost of a new alternative fuel vehicle or for the retrofitting or repowering of an existing vehicle, all MSERCs attributable to AB 2766 Discretionary Funds must be retired. The determination of AB 2766-MSERCs for infrastructure and other ancillary items is to be prorated based upon the AB 2766 program's contribution to the associated air quality benefits. Determination of the project's overall cost will be on a case-by-case basis at the time an MSERC application is submitted. AQMD staff, at the time an MSERC application is submitted, will calculate total MSERCs and retire the AB 2766-MSERCs. CONTRACTOR would then receive the balance of the MSERCs not associated with AB 2766 funding.

15. NOTICES - Any notices from either party to the other shall be given in writing to the attention of the persons listed below or to other such addresses or addressees as may hereafter be designated in writing for notices by either party to the other. A notice shall be deemed received when delivered or three days after deposit in the U.S. Mail, postage prepaid, whichever is earlier.

AQMD: South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765
Attn: Cynthia Ravenstein, MSRC Contract Administrator

CONTRACTOR: San Bernardino Associated Governments
1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410
Attn: Michelle Kirkhoff, Director of Air Quality/Mobility Programs

16. EMPLOYEES OF CONTRACTOR

- A. CONTRACTOR warrants that it will employ no subcontractor without written approval from AQMD. CONTRACTOR shall be responsible for the cost of regular pay to its employees, as well as cost of vacation, vacation replacements, sick leave, severance pay and pay for legal holidays.
- B. CONTRACTOR shall also pay all federal and state payroll taxes for its employees and shall maintain workers' compensation and liability insurance for each of its employees.
- C. CONTRACTOR, its officers, employees, agents, or representatives shall in no sense be considered employees or agents of AQMD, nor shall CONTRACTOR, its officers, employees, agents, or representatives be entitled to or eligible to participate in any benefits, privileges, or plans, given or extended by AQMD to its employees.
- D. CONTRACTOR warrants that it has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Contract. CONTRACTOR further represents that in performance of this Contract, no person having any such interest shall be employed by CONTRACTOR or any subcontractor.

17. PUBLICATION

- A. Information, data, documents, or reports developed by CONTRACTOR for AQMD, pursuant to this Contract, shall be part of AQMD'S public. CONTRACTOR may use or publish, at its own expense, such information provided to AQMD. The following acknowledgment of support and disclaimer must appear in each document disseminated, whether copyrighted or not, and based upon the work performed under this Contract.

"This report was prepared as a result of work sponsored by the Mobile Source Air Pollution Reduction Review Committee (MSRC). The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of AQMD. AQMD, its officers, employees, contractors, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. AQMD has not approved or disapproved this report, nor has AQMD passed upon the accuracy or adequacy of the information contained herein."

- B. CONTRACTOR shall inform its officers, employees, and subcontractors involved in the performance of this Contract of the restrictions contained herein and require compliance with the above publication terms.
- C. AQMD shall have the right of prior written approval of any document which shall be disseminated to the public by CONTRACTOR in which CONTRACTOR utilized information obtained from AQMD in connection with performance under this Contract.

18. OWNERSHIP - Title and full ownership rights to any products purchased or developed under this Contract shall at all times remain with CONTRACTOR. CONTRACTOR shall also retain title and full ownership rights to any documents or reports developed under this Contract. All of the above shall be subject to the following limitations:

- A. PATENT RIGHTS - CONTRACTOR shall have patent rights, as well as title and full ownership rights, for invention(s) developed under this Contract, subject to AQMD retaining a no-cost, nonexclusive, nontransferable, irrevocable license to use or test such invention(s) for AQMD purposes. CONTRACTOR must obtain agreements to effectuate this clause with all persons or entities obtaining an ownership interest in the patented subject invention(s). Previously documented (whether patented or unpatented under the patent laws of the United States, 35 U.S.C. 1 et seq., or any foreign country) inventions are exempt from this provision. CONTRACTOR shall submit a written report to AQMD'S Agent disclosing each subject invention and specifying patents applied for, patents issued, and patent application(s) abandoned and/or cosponsored participants on subject invention(s).
- B. RIGHTS OF TECHNICAL DATA - AQMD shall have unlimited right to use technical data resulting from performance of CONTRACTOR under this Contract. CONTRACTOR shall have the right to use data for its own benefit.
- C. COPYRIGHT - CONTRACTOR agrees to grant AQMD a royalty free, nonexclusive, irrevocable, nontransferable license to produce, translate, publish, use, and dispose of all copyrightable material first produced or composed in the performance of this Contract.
- D. SOFTWARE RIGHTS - CONTRACTOR agrees to grant AQMD a worldwide, royalty free, nonexclusive, irrevocable, nontransferable license in perpetuity to use any software developed by CONTRACTOR in performing its obligations under this Contract. CONTRACTOR further agrees to obtain the rights required from any third party for AQMD to have a worldwide, royalty free, nonexclusive, irrevocable license in perpetuity to use any other software essential to performance of CONTRACTOR'S obligations under this Contract or necessary to the operation of the software developed by CONTRACTOR. CONTRACTOR shall provide AQMD with documentation confirming CONTRACTOR'S right to assign the use of such software. CONTRACTOR shall also provide AQMD with all documentation and manuals required to operate the software developed by it or third parties.
- E. CONTRACTOR'S INSOLVENCY OR BANKRUPTCY, or PROJECT'S DISCONTINUATION - CONTRACTOR agrees that in the event that CONTRACTOR becomes insolvent or files for bankruptcy during the term of the Contract or does not complete the intent of the project, title to goods, services software, and equipment purchased for the performance of this Contract with AB 2766 Discretionary Funds shall revert to the AQMD. Public agencies and schools are exempt from this clause.

19. NON-DISCRIMINATION - In the performance of this Contract, CONTRACTOR shall not discriminate in recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age, or physical handicap and shall comply with the provisions of the California Fair Employment & Housing Act (Government Code Section 12900, *et seq.*), the Federal

Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), and all administrative rules and regulations issued pursuant to said Acts and Order. CONTRACTOR shall likewise require each subcontractor to comply with this paragraph and shall include in each such subcontract language similar to this paragraph.

20. SOLICITATION OF EMPLOYEES - CONTRACTOR expressly agrees that CONTRACTOR shall not, during the term of this Contract, nor for a period of six months after termination, solicit for employment, whether as an employee or independent contractor, any person who is or has been employed by AQMD during the term of this Contract without the consent of AQMD.
21. PROPERTY AND SECURITY - Without limiting CONTRACTOR'S obligations with regard to security, CONTRACTOR shall comply with all the rules and regulations established by AQMD for access to and activity in and around AQMD'S premises.
22. ASSIGNMENT - The rights granted hereby may not be assigned, sold, licensed, or otherwise transferred by either party without the prior written consent of the other, and any attempt by either party to do so shall be void upon inception.
23. NON-EFFECT OF WAIVER - CONTRACTOR'S or AQMD'S failure to insist upon the performance of any or all of the terms, covenants, or conditions of this Contract, or failure to exercise any rights or remedies hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions, or of the future exercise of such rights or remedies, unless otherwise provided for herein.
24. ATTORNEYS' FEES - In the event any action (including arbitration) is filed in connection with the enforcement or interpretation of this Contract, each party in said action shall pay its own attorneys' fees and costs.
25. FORCE MAJEURE - Neither AQMD nor CONTRACTOR shall be liable or deemed to be in default for any delay or failure in performance under this Contract or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor or transportation, or any similar cause beyond the reasonable control of AQMD or CONTRACTOR.
26. SEVERABILITY - In the event that any one or more of the provisions contained in this Contract shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this Contract, and the Contract shall then be construed as if such unenforceable provisions are not a part hereof.
27. HEADINGS - Headings on the paragraphs of this Contract are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Contract.
28. DUPLICATE EXECUTION - This Contract is executed in duplicate. Each signed copy shall have the force and effect of an original.

29. GOVERNING LAW - This Contract shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any dispute shall be Los Angeles County, California.
30. PRECONTRACT COSTS - Any costs incurred by CONTRACTOR prior to CONTRACTOR receipt of a fully executed Contract shall be incurred solely at the risk of the CONTRACTOR. In the event that a formal Contract is not executed, neither the MSRC nor the AQMD shall be liable for any amounts expended in anticipation of a formal Contract. If a formal Contract does result, precontract cost expenditures authorized by the Contract will be reimbursed in accordance with the cost schedule and payment provision of the Contract.
31. APPROVAL OF SUBCONTRACT
- A. If CONTRACTOR intends to subcontract a portion of the work under this Contract, written approval of the terms of the proposed subcontract(s) shall be obtained from AQMD's Executive Officer or designee prior to execution of the subcontract. No subcontract charges will be reimbursed unless such approval has been obtained.
 - B. Any material changes to the subcontract(s) that affect the scope of work, deliverable schedule, and/or cost schedule shall also require the written approval of the Executive Officer or designee prior to execution.
 - C. The sole purpose of AQMD's review is to insure that AQMD's contract rights have not been diminished in the subcontractor agreement. AQMD shall not supervise, direct, or have control over, or be responsible for, subcontractor's means, methods, techniques, work sequences or procedures or for the safety precautions and programs incident thereto, or for any failure of subcontractor to comply with any local, state, or federal laws, or rules or regulations.
32. MEMORANDA OF UNDERSTANDING (MOUs)/TEAMING AGREEMENTS - If an MOU or Teaming Agreement is required to perform the tasks set forth in Attachment 1, Work Statement, CONTRACTOR shall provide the MSRC Contracts Administrator with a copy of the fully executed MOU or Teaming Agreement prior to initiating any contract work. Notwithstanding Paragraph 30, CONTRACTOR will not receive any payment until the fully executed copy of the MOU or Teaming Agreement is received by AQMD.
33. CHANGE TERMS - Changes to any part of this Contract must be requested in writing by CONTRACTOR, submitted to AQMD and approved by MSRC in accordance with MSRC policies and procedures. Requests to expend funds above the Contract value stated in Paragraph 13A must be approved prior to the expenditure of additional funds. CONTRACTOR must make such request a minimum of 90 days prior to desired effective date of change. All modifications to this Contract shall be in writing and signed by both parties.
34. ENTIRE CONTRACT - This Contract represents the entire agreement between the parties hereto related to CONTRACTOR providing services to AQMD and there are no understandings, representations, or warranties of any kind except as expressly set forth herein. No waiver, alteration, or modification of any of the provisions herein shall be binding on any party unless in writing and signed by the party against whom enforcement of such waiver, alteration, or modification is sought.

IN WITNESS WHEREOF, the parties to this Contract have caused this Contract to be duly executed on their behalf by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SAN BERNARDINO ASSOCIATED
GOVERNMENTS

By: _____
Norma J. Glover, Chairman of the Board

By: _____

Date: _____

Date: _____

ATTEST:
Jackie Dix, Clerk of the Board

By: _____

APPROVED AS TO FORM:
Barbara Baird, District Counsel

By: _____

MSRCBoilerplate06/15/2006

Attachment 1 – Statement of Work
San Bernardino Associated Governments
Hereinafter Referred to as CONTRACTOR
MSRC Contract No. _____/SANBAG Contract No. C07021

Project Description

The purpose of this contract is to stimulate the deployment of new or expanded Freeway Service Patrols within the jurisdiction of the South Coast Air Quality Management District (South Coast AQMD). Freeway Service Patrols are designed to relieve peak-period non-recurring congestion on freeways through the quick detection, verification, and removal of accidents and other freeway incidents. Using funds provided by the South Coast AQMD, on behalf of the Mobile Source Air Pollution Reduction Review Committee (MSRC), CONTRACTOR shall develop and implement two new Freeway Service Patrol beats on State Route 60 and Interstate 215.

Statement of Work

This project consists of three tasks as described below:

Task I – Development and Preparation

CONTRACTOR shall develop a Freeway Service Patrol (FSP) program as specified below, including but not limited to: a) securing a Tow Service Operator for the specific beats.

Satisfaction of the following minimum requirements is mandated:

A. Location

The portion of State Route (SR) 60 and Interstate (I) 215 in San Bernardino County, California; SR-60 between Reservoir Street (Los Angeles County Line) and Milliken Avenue in Rancho Cucamonga. I-215 between Center Street (Riverside County Line) and 2nd Street in San Bernardino.

B. Days and Hours of Operation

FSP service will be implemented within the following operational limits:

- At least 90% of service shall occur Monday through Friday;
- Service shall be provided a minimum of 252 days per year;
- On those days when service is provided, service shall be provided at least seven hours per day during peak travel periods (peak travel periods are defined from 5:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m.); and
- A minimum of two FSP vehicles per beat shall be in operation during service hours.

C. Services

Quick detection, verification, and removal of accidents and other freeway incidents.

Task I Deliverables:

Attachment 1 – Statement of Work
San Bernardino Associated Governments
Hereinafter Referred to as CONTRACTOR
MSRC Contract No. _____/SANBAG Contract No. C07021

- Tow Service Operator agreement(s)

CONTRACTOR shall notify the MSRC Contracts Administrator when the task has been completed, and provide copies of the Task I deliverables upon request.

Task II – Implementation of FSP

CONTRACTOR shall ensure that FSP services are provided as described in Task I above.

Task II Deliverables:

- Fully operational program with accurate records showing that FSP program is being implemented as specified.

Task III - Monitoring, Documentation, and Reporting

Quarterly Reports: Prior to program implementation (Task II), CONTRACTOR shall report on a quarterly basis the progress made toward program implementation. Once program implementation has commenced, CONTRACTOR shall provide a quarterly accounting of:

- Number of FSP beats implemented during reporting period;
- Centerline miles for each beat implemented during reporting period;
- Average number of tow trucks deployed for each beat;
- Total number of service hours per beat for the reporting period;
- Total number of motorist assists per beat for the reporting period; and
- Average number of motorist assists per truck-hour per beat for the reporting period.

Quarterly reports shall also provide: preliminary findings and recommendations for completion of contract; discussion of any project delays or problems and solutions; and summary and analysis of project results to date. Progress Reports that do not comply will be returned to the CONTRACTOR as inadequate.

Final Report: Prior to the completion of the program, CONTRACTOR shall prepare a final report in the format provided by MSRC staff that summarizes actions taken to develop the program, identifies any obstacles and their solutions, discusses the successes of various administrative techniques or procedures, and quantifies the overall emission reduction benefits of the project.

Task III Deliverables:

- Final Report

CONTRACTOR shall submit Task III deliverables to MSRC for review.

**Attachment 1 – Statement of Work
Project Schedule
San Bernardino Associated Governments
Hereinafter Referred to as CONTRACTOR
Contract No. _____**

Project Schedule (based on date of contract execution)

The following are obligations of CONTRACTOR under the terms of this contract:

	Completion
Task I – Development and Preparation	Month 6
Task II – Implementation of FSP	Month 42
Task III – Monitoring, Documentation and Reporting	Month 44
Progress reports	Quarterly through completion of project

In the event the CONTRACTOR files for bankruptcy or becomes insolvent or discontinues this project, the following items revert to the AQMD for disposition into the AB 2766 Discretionary Fund account:

none

Attachment 2 – Cost Schedule
San Bernardino Associated Governments
Hereinafter Referred to as CONTRACTOR
Contract No. _____

The following table shows maximum MSRC costs as well as co-funded costs by task:

PROJECT COSTS BY TASK	Maximum MSRC Costs	Co-Funding	Total Project Costs
Task I – Development and Preparation	\$0	\$0	\$0
Task II – Implementation of FSP			
Tow Service Operator – towing (MSRC portion of cost shall be 75% of the actual cost with MSRC's portion not to exceed \$50 per hour)	\$804,240	\$268,080	\$1,072,320
Task III – Monitoring, Documentation and Reporting	\$0	\$0	\$0
Totals	\$804,240	\$268,080	\$1,072,320

Once implementation costs are incurred, CONTRACTOR shall submit invoices on a quarterly basis in conjunction with the progress reports specified in Task III, so that invoices are supported by an accounting of the service provided. CONTRACTOR shall also include copies of invoices from tow operator(s) and CHP or such other documentation as will substantiate actual costs. CONTRACTOR shall be reimbursed up to the total amount stated above.

Attachment 3 - Supporting Documents
San Bernardino Associated Governments
Hereinafter Referred to as CONTRACTOR
Contract No. _____

The supporting documents attached hereto as Attachment 3 represent obligations of the CONTRACTOR. Nothing herein shall be construed as an assumption of duties or obligations by the AQMD or granting any rights to third parties against the AQMD.

1. Certificate of Insurance

SANBAG Acronym List

1 of 2

AB	Assembly Bill
ACE	Alameda Corridor East
ACT	Association for Commuter Transportation
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
AQMP	Air Quality Management Plan
ATMIS	Advanced Transportation Management Information Systems
BAT	Barstow Area Transit
CAC	Call Answering Center
CALACT	California Association for Coordination Transportation
CALCOG	California Association of Councils of Governments
CALSAFE	California Committee for Service Authorities for Freeway Emergencies
CALTRANS	California Department of Transportation
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CHP	California Highway Patrol
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Program
CNG	Compressed Natural Gas
COG	Council of Governments
CSAC	California State Association of Counties
CTA	California Transit Association
CTAA	Community Transportation Association of America
CTC	California Transportation Commission
CTC	County Transportation Commission
CTP	Comprehensive Transportation Plan
DMO	Data Management Office
DOT	Department of Transportation
E&H	Elderly and Handicapped
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ETC	Employee Transportation Coordinator
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FSP	Freeway Service Patrol
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GFOA	Government Finance Officers Association
GIS	Geographic Information Systems
HOV	High-Occupancy Vehicle
ICMA	International City/County Management Association
ICTC	Interstate Clean Transportation Corridor
IEEP	Inland Empire Economic Partnership
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IIP/ITIP	Interregional Transportation Improvement Program
ITS	Intelligent Transportation Systems
IVDA	Inland Valley Development Agency
JARC	Job Access Reverse Commute
LACMTA	Los Angeles County Metropolitan Transportation Authority
LNG	Liquefied Natural Gas
LTF	Local Transportation Funds
MAGLEV	Magnetic Levitation
MARTA	Mountain Area Regional Transportation Authority
MBTA	Morongo Basin Transit Authority
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MIS	Major Investment Study
MOU	Memorandum of Understanding

SANBAG Acronym List

2 of 2

MPO	Metropolitan Planning Organization
MSRC	Mobile Source Air Pollution Reduction Review Committee
MTP	Metropolitan Transportation Plan
NAT	Needles Area Transit
OA	Obligation Authority
OCTA	Orange County Transportation Authority
OWP	Overall Work Program
PA&ED	Project Approval and Environmental Document
PASTACC	Public and Specialized Transportation Advisory and Coordinating Council
PDT	Project Development Team
PPM	Planning, Programming and Monitoring Funds
PSR	Project Study Report
PTA	Public Transportation Account
PVEA	Petroleum Violation Escrow Account
RCTC	Riverside County Transportation Commission
RDA	Redevelopment Agency
RFP	Request for Proposal
RIP	Regional Improvement Program
ROD	Record of Decision
RTAC	Regional Transportation Agencies' Coalition
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agencies
SB	Senate Bill
SAFE	Service Authority for Freeway Emergencies
SANBAG	San Bernardino Associated Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCRRA	Southern California Regional Rail Authority
SED	Socioeconomic Data
SHA	State Highway Account
SHOPP	State Highway Operations and Protection Program
SOV	Single-Occupant Vehicle
S RTP	Short Range Transit Plan
STAF	State Transit Assistance Funds
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TAC	Technical Advisory Committee
TCM	Transportation Control Measure
TCRP	Traffic Congestion Relief Program
TDA	Transportation Development Act
TEA	Transportation Enhancement Activities
TEA-21	Transportation Equity Act for the 21 st Century
TIA	Traffic Impact Analysis
TMC	Transportation Management Center
TMEE	Traffic Management and Environmental Enhancement
TOC	Traffic Operations Center
TOPRS	Transit Operator Performance Reporting System
TSM	Transportation Systems Management
USFWS	United States Fish and Wildlife Service
UZAs	Urbanized Areas
VCTC	Ventura County Transportation Commission
VVTA	Victor Valley Transit Authority
WRCOG	Western Riverside Council of Governments

San Bernardino Associated Governments



MISSION STATEMENT

To enhance the quality of life for all residents, San Bernardino Associated Governments (SANBAG) will:

- Improve cooperative regional planning
- Develop an accessible, efficient, multi-modal transportation system
- Strengthen economic development efforts
- Exert leadership in creative problem solving

To successfully accomplish this mission, SANBAG will foster enhanced relationships among all of its stakeholders while adding to the value of local governments.

Approved June 2, 1993
Reaffirmed March 6, 1996